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CLINICAL LECTURE.

CONSTIPATION A PRIMARY CAUSE OF  
TYPHLITIS, PERITYPHLITIS AND  
APPENDICITIS.\*

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The surgical study of typhlitis, perityphlitis and appendicitis has of late been the subject of very interesting researches. The relative safety which attends at the present time the great intra-abdominal operations, renders favorable the results obtained even in the most trying cases. Thus, to-day it is possible to treat with success abscesses of the iliac fossa, perforation of the appendix vermiciformis, peritoneal adhesions, peritonitis and similar disorders. The truly medical aspect, so to speak, of the disease in question, which seems to be absolutely disregarded, deserves our closest consideration.

Before the inflammation is established, patients with few exceptions, pass through a condition more or less characterized by inactivity and engorgement of the cæcum, and I will endeavor to show you the long succession of symptoms, the interpretation of which is apt to escape the observation of the most skilful clinician.

There was admitted into the ward of our Hospital, a boy nine years of age, suffering from a very pronounced attack of peritonitis. He states that his ailment came on, the day previous to admittance, as a result of a blow received on the abdomen. On the contrary, his family history shows that he has been suffering for several months, and for the last two months he has complained of abdominal pains to such an extent that he has been unable to walk. This indicates in a clear manner that the original cause of

the complaint which required his admission to the Hospital depends upon an irritated condition of the cæcum which dates some time back. In all the cases that I have studied I have met with the same symptoms and the same order of phenomena. The present instance is a self-evident example.

One of my private patients, a young girl who had suffered in her infancy from a severe constipation, exhibited at the age of six years, an obstruction of the cæcum, followed by a diarrhoea and inflammation of that part. I put her under treatment, and three weeks after all the symptoms had disappeared without a trace of induration. At this time I seriously warned the mother to pay personal attention to the danger of allowing the child to become constipated, and of the necessity of keeping the feces in proper condition, making her understand that a relapse, which frequently occurs, would place her daughter in great danger. I insist on the fact that parents do not understand the symptoms accompanying constipation in children. They are ignorant of what these symptoms signify, and as long as the child has a passage, they pay no regard to the quantity or the quality of the stools. In spite of my timely warning my advice was disregarded and a year later the girl was taken with a typhlitis, followed by an appendicitis and a fatal perforation of the appendix. The child died in the country in such a terrible agony that I believed a perforation of the appendix had occurred. I was present at the last moments of the patient, and I could see how the physician had been dealing unsuccessfully with an uninterrupted and typical course of symptoms. It is to me apparent that if the perforation had been the ultimate cause of death, it was being prepared, as it were, for a considerable time back by the inflammation and gradual dilatation of the cæcum and appendix.

To resume, a condition of chronic constipation has produced in this girl a dilatation of the cæcum, where accumulated faecal

\*Delivered at the Hospital des Enfants.

matters gave rise to irritation of the intestinal walls followed by distension of the cæcum. Inflammation again set in, owing to impaction of faecal matters in the cul-de-sac, and that, naturally, was followed by ulceration, perforation and the inevitable peritonitis.

In all the cases observed by me in private practice and in the wards of the Hospital I have noticed the same train of pathological phenomena, and in those instances where a special hygienic method has been observed and special treatment followed of which I will speak, the patients have always escaped the untoward symptoms mentioned.

The premonitory period of the disease is characterized by: Constipation followed by faecal impaction which may end in resolution, but a relapse often occurs, and then it either disappears entirely or gives rise to dilatation and thickening of the intestinal walls; and finally, under various causes, depending on the character of the food ingested or the excrementitious matter formed, or under the action of cold, etc. etc., the acute inflammatory disease may come on slowly but progressively upon the walls of the intestine, or with sudden violence upon the appendix.

The beginning of the symptoms can be traced ordinarily to the age of from 4 to 6 years. This pathological state may be divided into three distinct epochs: 1. Simple constipation; 2. Engorgement of the cæcum; 3. Stercoræmia and its effects upon the general system.

Simple constipation constitutes the initial symptom. This constipation is continuous, coming on and continuing without other apparent cause than the result of taking a large amount of food without being properly masticated. It alternates with lienteric passages. The stools are nearly always glairy and bilious. The child gradually evinces a lack of energy, a sickly appearance, becomes peevish and loses his appetite. At this period palpation reveals nothing but an accumulation of faecal matters. After evacuation there is softening of the part. Following an apparent return to the normal state, the same phenomena are reproduced.

If the constipation continues, it ends in the production of a subacute inflammation, a clammy condition of the walls of the cæcum; and then the second period sets in. Palpation then reveals no softening of the part. Reflex manifestations become marked and the child is troubled with a disturbed sleep. At times, he complains of headache, his intelligence is blunted, there is loss of memory, his disposi-

tion is soured, and his appetite becomes capricious or is entirely lost. The tongue is coated, and digestion slow and imperfect. There is then noticed a febrile reaction and a tendency to chills. Sometimes pain is felt at the iliac fossa, which may be of a dull nature. These symptoms often resemble those provoked by an attack of coxalgia. After exposure or fatigue the symptoms may take a more acute character, and the pain is frequently accompanied by vomiting.

When prolonged, the affection exercises a pernicious influence upon physical and mental development. Without producing an aggravated condition of the local symptoms, anaæmia makes its appearance to an alarming degree. The aspect of the child is then that of an advanced phthisical patient. The absorption of toxic intestinal matters causes an irregular fever, and a sallow, dull, earthy pallor. This group of symptoms, together with the pains and alternating condition of constipation and engorgement of the cæcum, may convey the impression of the existence of tubercular peritonitis. The persistence of such serious symptoms endangers life directly, without surgical complications. When a patient has reached such an advanced stage of the disorder, a cure is always with difficulty and slowly obtained.

At the patient's bed the progress of the malady never takes a regular course. The disease is attended by ameliorations and relapses which make its duration and progress of an indefinite character. The reflex symptoms are worse at times than would seem to be proportionate to the affection itself, among them we may have insomnia, cephalalgia, anaæmia, dyspepsia—troubles which are the first to call the attention of parents. It is then that you are called in consultation.

Inflammatory symptoms may appear at all periods of the disease. Simple constipation alone may give rise to perityphlitis without producing any disturbance of the general system; and again, as you have seen, the affection may be of a long duration, bringing about serious troubles due to stercoreæmia, but without other pathological complications than a local engorgement of the cæcum. I believe such initial beginning of perityphlitis to be an exceptional one, the disease being usually preceded by a long period of simple constipation. Of late, much stress has been laid on the perforation of the appendix. Of course, it is easy to conceive how a foreign body, irregular in shape, may perforate a sound appendix; but this acci-

dent will occur more frequently when there is a stagnation of faecal matters in the cæcum, or when there is engorgement of the intestinal walls. This engorgement is accompanied, as I have often observed in post-mortem examinations, by a true dilatation of the vermicular orifice which has facilitated the entrance of foreign bodies. In such cases, appendicitis should be looked upon, not as a primary, but as a secondary condition.

The gravity of pericecal inflammation and suppuration is familiar to you. In the most favorable cases the pus may find its way out through the skin, but the abscess may also open into the rectum, as I have noticed in a case of private practice.

Surgical interference has given good results in the most desperate cases. While I admit the justifiability of such procedures, let me insist on the importance of an early diagnosis which will prevent those measures. If simple cæcal engorgement, even without perityphlitis, is difficult to cure, suppuration constitutes a very serious and tenacious lesion. After an operation the patient may, for the time being, be relieved of the immediate symptoms due to the local suppurating processes, but the inertia of the cæcum continues to give rise to grave reflex symptoms.

In making a diagnosis we are often misled by parents, and are at a loss to account for the symptoms exhibited by the little patients. Many children are brought here to be treated for cephalgia, dyspepsia, anaemia, arrest of development, or similar troubles, when the true cause of the ailment is a simple constipation. An examination of the iliac fossa will reveal to us a suspicious condition of affairs. You must not confound the engorgement which results from constipation with the condition produced by perinephritic inflammations, by ovaritis, by abscesses, and by adenopathies from diverse causes. It is necessary, in order to make a correct diagnosis, to consider the malady in question as if it existed. Besides the cæcum, it is always advisable to examine the iliac fossa, when you will often find a stagnation of faecal matter.

If the diagnosis of cæcal engorgement is comparatively easy, it is easier still to determine the degree of the lesions present. Without speaking of the period of suppuration nothing is more difficult to appreciate at first than the inflammation of the intestinal wall and of the appendix. The duration of the disease, the glairy nature of the faeces, the persisting retention, even after evacuation of the bowels by means of a purgative, all indicate the presence of the mus-

the malady, and diminish, as you can understand, the chances of a definite recovery.

From an aetiological point of view, the disease starts, as I have pointed out at the beginning of this lecture, ordinarily at the age of from 4 to 6 years. Children suffering from this disorder sometimes have had severe enteritis early in life. I have often observed a true inheritance, parents showing a history of tenacious constipation. The little patients are frequently extremely nervous, and may exhibit tendencies to hysteria and epilepsy. You know also how constipation is a frequent symptom of cerebral disorders of childhood. As occasional causes, an inconvenient dietetic régime ranks in the first place. Tough meats and imperfectly cooked or improperly masticated food constitute one of the great causes of cæcal engorgement. Castigation of children, in the form of blows or lashing, often provokes a relapse of subacute inflammation, and cold acts in the same way. The disorder often follows cold baths and indigestion, and is frequently provoked by the ingestion of cold meats.

With these facts of aetiology you can conceive what the most important therapeutic indications should be. With regard to diet you must avoid all indigestible or tough food, and at the start you can allow beef and vegetables *well-cooked*, to be taken slowly and at regular hours. Tea, coffee and wines are to be avoided. Beer, mixed with Vals or Pouges water, may be considered as the best drink. Supper must be very light.

In the treatment of neurasthenia, friction with flannel dipped in cologne water are of great service. With regard to the management of impacted of faecal matters, you must never employ strong purgatives; you had better use, at the beginning, for this purpose, the fatty and mucilaginous substances. You can prescribe in the morning, for instance, two tablespoonfuls of the oil of sweet almonds, with the addition of a few drops of castor oil. On the following morning, a tablespoonful of macerated flaxseed together with some syrup of rhubarb. From time to time replace these laxatives with mineral water. The preparation known under the name of Ricinol can be given in half a tablespoonful doses in coffee, to young children, and double this amount to older patients. This medicament is well borne and constitutes a good way of varying medication.

In the tenacious form of the disease, belladonna and hyoscyamus are the best substances to use in combatting the dryness of the mucous membrane and atony of the mus-

cular walls of the intestine. You will order these agents in the form of pills, each containing a centigramme of the extract of belladonna and a centigramme of the extract of hyoscyamus, or a centigramme of the powdered leaves of belladonna and a centigramme of the hyoscyamus extract. To a child 4 years of age you can give from two to three pills in the course of twenty-four hours. The tolerance of these drugs is far greater than that of opium, and the doses may sometimes approach those used in adults. *Nux vomica* is also a good remedy to employ to provoke contractions of the intestinal walls, and its use may be alternated with that of belladonna and hyoscyamus. You can prescribe a mixture containing one part of Baume's tincture and 20 parts of tincture of rhubarb, cascara or aniseed, (or one drop of Baume's tincture), at the beginning of each meal.

I would also advise you to employ frictions and massage, both of which are useful in exciting contractions. Besides, you can use a liniment composed of 10 grammes of the tincture of *nux vomica* and 40 grammes of the oil of chamomile. In this way, an absorption of the former drug can be obtained, which has the same effect as when administered internally. Finally, electricity in the form of simple faradic or galvanic currents, intra-rectally applied, is equally good.

CHRONIC GASTRITIS TREATED BY LAV.  
AGE.\*

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The man before us is 49 years of age, and was admitted to the Hospital on September 1, 1891, complaining of very severe colicky pains in the abdomen. The pain, which was evidently due to catarrh of the small intestines, was relieved by small doses of epsom salts and laudanum. He continued, however, to complain of epigastric pain, and, upon careful questioning, it became apparent that he had suffered for some months with severe attacks of pain and vomiting. The ordinary methods of treatment were tried; he was placed on bismuth and calomel in small doses; he had daily doses of Carlsbad salt ( $\frac{3}{j}$  to  $\frac{3}{j}$  of hot water); diet was regulated and for

several days his food was restricted to peptonized milk. But, in spite of this treatment, he continued to complain of pain, and vomited about once a day. Seeing how utterly futile the above treatment was, it occurred to us that digestion was probably rendered difficult or impossible by an accumulation of mucus in the stomach, and that it would probably be necessary to cleanse the stomach of this before we could hope to obtain any marked relief.

Experience has shown that a soft rubber tube can easily be swallowed by a patient who is willing and anxious to co-operate with the physician, and who is not very nervous or irritable. This patient has already swallowed the tube two or three times, and you see, as my resident, Dr. Miller, passes the tube well back on the epiglottis and asks him to swallow it, it passes down the oesophagus naturally and without apparently causing the patient any marked discomfort. As it passes the epiglottis and compresses slightly the posterior portion of the larynx, a slight choking sensation is generally experienced, but with the descent of the tube, this sensation gradually passes off. The tube is now in the stomach, and Dr. Miller proceeds to pour directly into the stomach, through the funnel at the upper end of the tube, the alkaline solution (about half an ounce of bicarbonate of soda to one quart of water). After the stomach is full, depressing the funnel causes emptying of the stomach by siphonage. This process is gone through with every second or third day.

There is no question that the long continued use of lavage may be injurious, and may tend to impair the function of the peptic glands, but in some cases, the first effects in relieving the patient of distress and enabling him to digest food, which he for weeks has been utterly unable to do, are certainly most encouraging. The patient feels much better after this treatment. For two or three days he has had no food at all by the mouth, and was put entirely upon nutrient enemata consisting of the white of an egg,  $\frac{3}{j}$  of Carnrick's beef peptonoids in powder, and  $\frac{3}{vj}$  of peptonized milk. You know that in introducing food into the bowel, it is important to peptonize it, because the glands of the rectum absorb, but do not, except perhaps in a very feeble degree, peptonize food. The bowel is thoroughly washed out by an enema of soap and water, once a day, about two hours before the nutrient enema is introduced; and, to prevent excessive irritability of the rectum and secure attention

\*Delivered at the Pennsylvania Hospital, Philadelphia.

of the enema, about one-sixth of a grain of morphine sulphate is added to the enema. Yesterday, he was put upon a small amount of milk. To-day, he tells us that he feels a great deal better. He complains somewhat of hunger, and I think he can now digest much larger amounts taken by the mouth. I hope he will gradually be able to live as do other people; however, it is not impossible that there may be, in this case, some obstruction at the pyloric orifice.

We may have here to deal with a case of dilatation of the stomach, brought on by long continued gastric catarrh. Further study of the case will doubtless throw light on this point, but, in any case, we must be prepared to expect a very slow recovery, as this condition is one that has probably been gradually developing for years past, and the whole nutrition of the mucous membrane of the stomach is altered, and it may take months to restore the normal conditions, if, indeed, they can ever be completely restored.

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#### METABOLIC ELECTRIC POLARITY AND ELECTRO-THERAPEUTICS.\*

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The main contention of this paper is, deductively, that since the normal and morbid processes of living tissues proceed by chemical exchanges (plus a directive tendency which is unknown) from the assimilation of food through excretion, viz., by metabolism, differentiated into anabolism and katabolism; and since it is probable that chemical exchanges of this nature cannot take place without the exhibition of electric polarity and electric currents and since experimentally this electric polarity is demonstrable (facts of animal electricity); and since, as claimed by the writer, this polarity must, if due to the chemical exchanges of metabolism, be initially and invariably electro-positive in its internal circuit, because katabolic and therefore initiated by the avidity of the oxygen atom (or its congeners) for the atoms of the tissue subject to combustion; and since, if, as further claimed, this polarity be admitted to be due to chemical changes, it must equally be admitted to represent, not alone a transformation into electric energy but also the transformations into

heat, mechanical force and all the kinetic energies of the living organism.

Therefore, as a consequence, this initial, invariable electro-positive polarity may be regarded in the important light of being equally an invariable guide to the electro-therapeutist.

And as regards disease (and equally normal processes,) focal positivity, (corresponding to the zinc element of a voltaic cell), may be ascertained to be an invariable element of its progress and consequently may be combated by an inverse current or applied extraneous medical polarity which may augment, annul or reverse the initial focal positivity and therefore augment, annul or reverse the chemical exchanges underlying it.

To employ this guide in practice, metabolism, normal and morbid, but for the time being confining attention to morbid metabolism, may be said to consist of :

- (a) Overactive chemical exchanges, and
- (b) Underactive chemical exchanges.

In over-activity :

(a) An applied (medical) positive pole will increase the activity, *i. e.* augment the disease.

(b) An applied negative pole will decrease the activity, *i. e.* palliate or cure the disease.

In under-activity :

(a) An applied positive pole will increase the activity, *i. e.* palliate or cure.

(b) An applied negative pole will decrease the activity, *i. e.* augment the disease.

Two curative directions only of treatment are open, viz. the negative pole in over-activity and the positive pole in under-activity.

The above four results may be obtained experimentally by applying a voltaic battery to a single voltaic cell, as indicated.

What may be true of morbid processes is held to be equally true, on parallel lines, of normal processes.

The "current of action" or "negative oscillation" may be explained upon the supposition that unstable endothermic substances formed by protoplasmic voltaic action at the negative element during repose are decomposed (by aid, for example, of an initial neural impulse) and produce an electric current in an opposite direction.

The chemical, oxidizing, katabolic, protoplasmic foci of all the liberated energies are ascertainable by the peculiarity of one of them—the electric—that it exhibits polarity.

The polarity of metabolism, crudely speaking, may be said to be the signal flag

\*Abstract of a paper read before the American Electro-Therapeutic Association, Sept. 24, 1891.

which flies at the initial chemical sources of the disease to guide the electro-therapeutist. And even if the writer's view that all morbid processes must be, initially and invariably, electro-positive, be not found to hold good in all diseases, still the suggestion to adopt polarity as a guide and to base treatment by applied currents, upon the principles outlined, will remain fixedly applicable in practice.

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MALARIAL HÆMATURIA. \*

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The history of this disease seems to be veiled in obscurity. Go to our text-books, and they are almost silent. I have consulted Bartholow, Flint, Loomis and Da Costa, and lo! only a paragraph or two is to be found. Now, why is this? Is it because these men have always practiced medicine in large cities, where the morbid cause of this disease is not prevalent? I know not. But I do know that they are almost silent. It is only in the medical journals, then, that we can find any information, and even here what we seek, on some points at least, is meagre, unsatisfactory and ambiguous.

Malaria is said to prevail from 42° north latitude to the Gulf. It would seem that there is a consensus of medical opinion upon one point, to wit: That malaria, whatever that may be, germ or what not, is the etiological factor in the production of the family of diseases to which this one belongs. Probably it would be well to state here that I am fully aware that a number of cases of hæmoglobinuria, some of which are paroxysmal in character, clearly not of malarial origin, are on record. Dr. Harley, of England, in his great work on "Diseases of the Liver," reports, in substance, the following case: The subject, a blacksmith by occupation, of stout, robust build, had never been out of London, never exposed, as far as could be ascertained, to malaria. When first seen by the doctor he had a dark, sallow, care-worn complexion, with evidence of hepatic trouble, and was passing paroxysmally, bloody urine, corresponding with his chilly or cold sensation. He was treated with calomel and quinine, and made a good recovery. Among other causes assigned I

notice rheumatism and the syphilitic virus.

That rare disease, acute icterous hæmoglobinuria of the newly born, or Winckle's Disease, has many points of resemblance to malarial hæmaturia. Notwithstanding these exceptional cases, I don't think they militate one particle against the fact that malaria is the materies morbi in this and kindred diseases. Observe, too, that Dr. George Harley's case yielded nicely to the calomel and quinine treatment.

It seems that most writers claim this disease to be of recent origin. Can this be true? I think not, and for the following reasons: First, it seems to me that it is the literature of the subject that is modern, and not the disease. This affection is met with almost exclusively in rural and insalubrious districts. Now, it is a well-known fact that medical literature has been but little shaped by the profession of these sections—little now, and far less in the past. Second, if this morbid principle which we call malaria is generated by decaying vegetable matter, under telluric and atmospheric influences, then, I take it, that these influences have been operating from the remotest antiquity. If, as we are taught, these influences are especially active in the production of this miasm in the spring and autumn months, (more especially the latter), then it is reasonable to infer that such disease must have existed from time immemorial. It is truly gratifying to find that clear writer, fine thinker and practical physician, Dr. R. H. Day, of Baton Rouge, La., agreeing with me in the history of this disease. I know of no higher authority in this class of diseases. He has this to say: "In 1837 up to 1843, I encountered this disease every year in the bottom-lands of the Wabash and White rivers in the States of Illinois and Indiana, and from 1843 to 1846 in the White River bottom, in the State of Arkansas, and that the oldest citizens of those places at that time recognized this disease and spoke of it as their ancient and common enemy."

Its causation, or etiology, has been sufficiently given, in a general way, whilst discussing its history. It is clearly to me an hepato-renal malady, and that malarial toxæmia of considerable duration is the primary causative factor. How this subtle poison of malaria acts upon the economy bringing about this destruction of the blood we cannot learn positively, but that such destructive changes are wrought is too true, culminating at last in this form of the pernicious malarial fevers. The great Dr. Harley, in commenting on this disease, gives us this

\* Read before the Lowndes Co. (Miss.) Medical Society, October 6th, 1891.

physiological and pathological speculation, which, to my mind, foreshadows a theory that gives us a rational explanation of the disorganization of the blood globules. Here is what he says: "I was particularly struck with the resemblance this urine bore to the urine I have occasionally seen dogs pass after I had injected either bile or bile acids in toxic doses under the skin of their backs. Their urine not only occasionally presented the same color, but contained lots of granular tube casts, and still further resembled this human urine in being coagulable by heat and nitric acid. All this leads me to the conclusion that the condition of the urine in cases of paroxysmal hepatic albuminuria is in great part due to the disorder of the biliary secretion brought about by the direct result of malaria acting upon the liver." Again, he says: "As bile acids have a powerful disintegrating effect on the cell-walls of the red blood-corpuscles, it has once or twice crossed my mind that this peculiar condition of the urine in paroxysmal hepatic hematuria may possibly be due to the abnormal quantity of bile acids in the circulation." Now, then, if it is true that the bile, in abnormal quantity in the blood is destructive, in a powerful degree, to the entirety of the red blood-globules, and if this bile and its acids are in abnormal abundance prior to and during the course of this disease, it is nothing but rational to accept this theory as explanatory of the dark, bloody urine, which alone is pathognomonic of this disease. Certain it is, in this disease, that the blood is surcharged with bile, and every tissue of every organ in the body is soddened with the same. And if this theory is not borne out by the clinical history of the disease, then our treatment, in part at least, can be naught but irrational and unscientific; for I have my first physician yet to see, or writer yet to find, who does not recommend a prompt and decided attack upon that gland by which the offending substance is both elaborated and excreted. Therefore, I accept the theory that the functions of the liver are the first to be involved by the poison of malaria. Does the pathological aspect of the disease sustain this theory? Seemingly, yes. The liver is first congested and enlarged, with cessation, more or less complete, of its functions of bile formation and elimination. Consequently, the bile and its acids come in contact with and act upon the walls of the red blood corpuscles, causing them to break down. Intense jaundice soon follows. The nervous system is profoundly affected by the bile and its acids

and other poisonous products of blood disintegration, since the functions of that great depurative organ are nil or nearly so. These poisons are hourly, yea, momentarily in transit through the kidneys, causing intense congestion and grave lesions in these important organs, culminating in their break down and the attending outflow of black, bloody urine. According to Dr. Joseph Jones, of New Orleans, "the colored blood corpuscles are more uniformly and rapidly destroyed in severe cases of malarial fever than in any other disease, with the exception perhaps of pyæmia. Authors state that the more severe and malignant the case, the fewer intact red blood-globules are found in the urine. This is confirmed by the analyses of urines made by those two eminent microscopists, Drs. Sternberg, of the U. S. Army, and Tyson, of Philadelphia. This statement of clinical facts, and analyses, strengthens the hepatorenal theory of the disease.

What of the diagnosis? The physiognomy of this disease is so striking that I will only touch upon its diagnosis by differentiating it from two or three other diseases. It would be well to state here, however, that there are two types of this malady. One, assuming the form of continued or bilious remittent fever; the other, markedly intermittent in its nature. Bilious remittent fever is stated to have a sort of family resemblance to this for graver affection. Jaundice, slight in the former, and develops slowly; intense in the latter, and sudden in its onset. Nausea and vomiting, a distressing symptom of the latter; not always present in the former, and when present not nearly so distressing. The nerve centres are not as profoundly affected in the former as in the latter. The urine may be high colored in the former; in the latter, it is always very dark, sometimes black. The urine of the former, while it is high colored and scanty from the fever, yet these features come on rather gradually, and there is no suppression; in the latter, the urine is black or dark from the start, loaded with the debris of disorganized blood-discs, and with a tendency always to suppression.

Yellow fever has many symptoms in common with malarial haematuria. In fact, some members of the profession regard the two as different types of the same disease. I was told only a year or two since by a physician (and he was far above the average medical man in intellectual power and medical training), that he regarded yellow fever and malarial haematuria as one and the same disease. As he expressed it, it was simply

the yellow fever of the interior. He was a man, too, with much experience in this disease. Authors tell us that yellow fever is an acute infectious disease, occurring only south of  $48^{\circ}$  north latitude, in regions having a mean annual temperature of not less than  $70^{\circ}$  Fahr. When the germs of yellow fever are imported into a region of country, if the telluric atmospheric and sanitary conditions are suitable, it at once becomes contagious. This far from the case with the malarial disease. The former is confined mainly to the sea coast, and the denser the population the more intense and virulent the poison; the latter is found in the interior, where the land is low and marshy; and is but seldom if ever seen in populous cities. Both of these affections are ushered in by a chill. The icteroid hue of the skin is not as sudden in its onset in yellow fever as it is in the malarial affection. The dark, bloody urine of yellow fever is a rather late symptom; in malarial haematuria it comes on with the chill. Black vomit is characteristic of yellow fever; not very often met with in the malarial trouble. Slight cold, such as frosty mornings soon puts a stop to the ravages of yellow fever—I treated a case of haemorrhagic malarial fever in the month of February, while the ground was covered with snow. The former attacks the robust as well as the weak; the victims of the latter are those whose systems are undermined and enfeebled by chronic malarial poisoning. It seems to me that acute malarial jaundice comes nearer wearing the habiliments of malarial haematuria than any other disease. And, in truth, they are closely allied, springing from the same parent stock, malaria. In both you meet the deep yellow skin and conjunctivæ. In both you meet that intense nausea and vomiting and loathing of food. Fever in both, not so high, however, in the jaundice. Enlarged and congested liver and spleen, with tenderness, and constipation and clay colored stools in both. Dark and bloody urine in the one; and dark (though not so dark) and bile stained urine in the other. This aggregation of symptoms corresponds closely to the cases of acute malarial jaundice coming under my observation. In fact, I have endeavored to portray the malady as met with in my own person. I have often thought how close I was at that time to malarial haematuria; for, in my mind, there is but a step from the jaundiced to the haematuric variety of this toxæmia. I have often thought that the difference consisted in something like this: The liver though much disordered still

eliminates a sufficiency of its biliary products to prevent immediate destruction of the red blood-discs, thereby saving the kidneys from sudden shock, congestion and the overloading of their vessels and excretory ducts with these effete and poisonous products of blood disintegration, allowing them time to take upon themselves the vicarious action of excreting bile, by which they, in their turn, rescue the liver from a total suppression of its functions. In other words, the pathological steps in the two diseases are nearly the same, with the difference that the one moves with the gathered force of the destructive cyclone, while the other moves with only that of the severe gale.

Before coming to the prognosis and treatment I would like briefly to mention two peculiarities of this affection: First, writers and observers of most experience tell us that this disease is never met with in the person of the negro. Why this racial immunity I wot not, nor do these writers, as far as I have seen, venture to tell us. It is an undisputed fact that the African race is not so prone to poludal affections generally as white men, and when encountered in this people they are more benign and tractable to treatment. There is a scope of country, of considerable area, east of us, where no white man dare attempt to live; yet here the negro, the owl, the tadpole and the mosquito "flourish like the green bay tree." As the original habitat of the negro is the jungles of tropical Africa, I take it that an All Wise Creator has given him an organism that is equal to the task of withstanding the ravages of swamp miasm. However, this might more properly be called a peculiarity of this race, and not one of the disease. In the second place, how often it is that we see a man residing in a malarious section escaping the poison, or, if not escaping, having it in some of its mild or masked forms. Now let him leave for healthier climes, and he is soon stricken with this or one of the other malignant forms of this many sided disease. I have in my mind's eye now two instances of this kind that went from my own neighborhood. One of these was a youth who had had no malarial outbreak for probably a year prior to his departure for a region where malarial troubles were certainly not of common occurrence. While he had had no active manifestation of malarial poisoning, yet the unmistakable cachexia was but too plain. The other, a young man of good constitution, had suffered from one or two spells of a mild form of intermittent fever, tertian in type, just

previous to his departure for the Gulf Coast of Mississippi, where such a thing as malarial haematuria is unknown. Such occurrences as these are common and striking. These two cases were of the most malignant type, and death was the immediate result. How is it that these organisms of ours can hold up and succeed in throwing off the poison, though exposed to its insidious invasion each moment of our existence, and, yet, when we reach a section where malaria is not a disease producing factor, an outburst of this fearful disease is upon us? Probably it may be explained by the total change of environment, body habit, and all influences tending to depress mentally. This change may produce a lowering of the vital forces, and a depression of the functions of the organs of secretion and excretion. This lowered state may be but transitory, yet sufficiently long for the poison that is stored up in the body to gain the mastery over that equipoise of our physiological state, known as health. This view, at least, furnishes me with a rational explanation of the cause in the two cases coming under my immediate observation. While at home they had both led active lives, passing a large part of the time in the open air. After their change of residence the reverse of this was true,—one of them entering the school-room, and the other, a mercantile establishment.

The prognosis in this disease is, indeed, grave. The death-rate, according to different writers, ranges from twenty to as high as sixty per cent. Candor compels me to admit that the mortality in my own cases, only six in number, amounted to fifty per cent. It is some consolation to me, however, to know that my cases were of the most malignant type of the disease, with the exception of one case, and, strange as it may seem, this one is on the debit side of my experience. This case impressed me from the start as mild, if any of them are ever mild. The subject was a female, about sixty years of age. She had suffered for years from that form of malarial poisoning known to the laity as sun-pain or brough-ague, and to the profession as supra-orbital neuralgia. For about a week before the hemorrhagic spell she had suffered—something very unusual for her—with a mild form of intermittent fever. Had taken a purgative, but had taken no quinine to arrest the chills, except one or possibly two doses the day I was sent for. She had just gotten up from the dinner table, where she had eaten a large quantity of boiled cab-

bage, when the hemorrhagic chill came on. Reaction had set in when I reached her, but the fever was not very high. The icteroid hue was just beginning to diffuse itself over the body, but it was not at any time, except twenty-four or thirty-six hours before her death, intense. There was nausea, but no vomiting, for the first twenty-four hours, and after that only an occasional spell of vomiting. The urine could not be called black, but it had a dark smoky appearance, and was a little more than normal in quantity at first, after which it very gradually lessened each day. The pyrexia and apyrexia were as well marked in this case as they are in any ordinary intermittent. The urine would begin to darken in color with the beginning of the pyrexia, and would continue so for six or eight hours, then, simultaneous with the apyrexia, it would begin to clear up, and in the course of six or eight hours more would be almost normal in color. Regularly each day at about twelve o'clock this exacerbation of fever and darkening of the urine would begin, and for six days, the woman dying on the morning of the seventh day—this was the picture. I think I had a right, with this group of symptoms, to regard this case as mild. One other of my fatal cases was a relapse, suppression of urine beginning shortly after the initial chill of the relapse. This patient, a woman of forty or forty-five years of age, had so far recovered from the first seizure that she could walk about her yard.

Now, as to the treatment. If you have followed me in my notion of the pathology of this disease, you know pretty well before hand, about the line of treatment adopted. I will recite the treatment pursued in the above mentioned mild case, as it was and is my general plan of treatment, varied, of course, to meet special symptoms as they may arise: I used a large blister, reaching from the liver and extending across the stomach to the spleen. Gave five grs. of calomel, with two or three grs. of bicarbonate of soda, every two hours until fifteen grs. of calomel had been given. Two hours after giving the last dose of calomel and soda I gave a large enema of warm water. Bowels acted well, large and greenish stools. Began quinine just as soon as bowels began to move, five grs. every two hours, and succeeded in getting thirty grs. in her before the twelve o'clock pyrexia. I gradually increased the quinine each day, until the fourth day she was getting as much as fifty grs. Notwithstanding this heavy dosing of quinine the

pyrexia and darkening of the urine would come on at the usual hour, or a little before. I used fomentations over the region of the kidneys, lightly sprinkled with turpentine and heavily sprinkled with tr. of digitalis, and gave the latter drug in five drop doses every three or four hours. I did not resort to quinine hypodermically in this case, because the stomach bore it very well. I know that the practice of giving morphine, and even quinine for that matter, is a mooted question in this disease. But, right here, let me say, that my patients who got no morphine have gone from hence, and those to whom it was administered are with us still. Mark me, I claim no curative power for this drug, in this disease; but I do claim that an hypodermic of one-eighth or one-sixth gr. of morphine is the most effectual treatment at our command for allaying nausea and vomiting, and for quieting that intense nervousness always met with in this disease. I further know that after using quinine for four days in the case just outlined, I then began some other plan of treatment (I do not remember the exact treatment now, though muriate tr. of iron and chlorate of potash were two of the medicines freely used), and at once my patient began to grow worse. Every time I think of that case I can but regret that I quit the quinine instead of pushing it still further; for, while it did not arrest the disease, it was evidently holding it in abeyance. This will be my general plan of treatment in the future as it has been in the past. Not that I can claim any brilliant results for it in my hands, but certainly it is rational, and others report results equal to any other plan of treatment and probably better.

#### UTERINE TREATMENT DURING GESTATION. \*

BY J. E. GILCREEST, M. D.,  
GAINESVILLE, TEXAS.

I shall notice *first*, the class of cases that we are called upon to treat, which need little or no treatment; and, *second*, the class that is needing treatment for various pathological conditions; then, I will report a few cases illustrative of each class.

I am aware that physicians differ widely on this very important subject. Some au-

thorities say that all treatment is useless, and often hurtful; while others advocate all kinds of treatment, even for lacerated cervix, removal of ovarian tumors, fibromas and various other operations. I think much conservatism should be used in the treatment of diseases during pregnancy.

Turning now to the first class mentioned, namely, those that need little or no treatment, we find ourselves often consulted in regard to amenorrhœa, or as the patients often express it: "I have taken cold, and am suffering a great deal with my womb, and want you to do something for me to bring me all right. I know that is all the trouble." And when we suggest that the cause of the menses stopping is very likely a physiological one, they will protest and say they do not believe it possible, and insist upon something being done for them.

Of course, they are often sincere in their declarations. Some are so opposed to bearing a child, that when they think there is any chance of conception having taken place, they become almost desperate, and if they think they can get rid of it by deceiving us they will do so. Whenever we are called or consulted by a married lady who has missed her regular menstrual period for one or two weeks, we should always be suspicious, and if we think there is the slightest probability of conception, then we should be very guarded in our examination, and should avoid the use of probes, sounds, and all rough manipulations.

If the patient is suffering and any treatment is indicated, give it, but cautiously. Many such cases will not want any treatment after they find you will not bring on their menses.

CASE I.—I was called in May, 1886, to see Mrs. E., aged 30 years, mother of one child, four years old. She had been irregular for the past three years, suffering from backache, leucorrhœa, etc. They desired an examination, and something done. On examination I found the uterus slightly swollen, and I thought anteflexed; they told me it had been about five weeks since her menses, but assured me that was nothing unusual, as she had often gone five and six weeks.

My experience at that time had been limited almost entirely to what I had seen and examined in the Hospitals. I wanted to make a very thorough and scientific examination. Going through the different methods as laid down by Thomas for examinations for displacements, I came to the use of the sound. I then determined to see by the use of the sound to what degree the uterus was

\* Read before a recent meeting of the North Texas Medical Association.

anteflexed, so I gave the sound what I thought the necessary curve and passed it. It indicated slight anteflexion; but was that all? No, I made my application and went home, but was soon called back in haste by a message that she was "flooding to death." I hurried back feeling that I had committed an unpardonable blunder, and that if my patient died I would be ruined.

I suppose she had an abortion, although I never saw any secundines or embryo. I called in an older physician, and we had much trouble in controlling the haemorrhage. Her condition was alarming several times. I have always been very careful about passing the sound since then. This was entirely accidental on the patient's part, as well as my own. She had not intended to deceive us, nevertheless she did. I could enumerate a number of cases since that time that applied for treatment after conception had taken place, and by assuring them that it would be best to wait awhile, they would not return, but go on to full term. As I have said, I think this class of cases had better be left to nature as much as possible. We will now consider some of the conditions that do demand treatment, and I will cite a few illustrative cases.

One of the principal things calling for treatment in early pregnancy is the different displacements—and the retro-displacements stand first in importance, as they are the most common. All displacements bring about many and severe symptoms during gestation, such as vesical and rectal tenesmus, obstinate constipation, retention or incontinence of urine, often painful in various degrees; but the most frequent symptoms we are called upon to treat are nausea and vomiting. We should always look to the uterus as the cause, and endeavor to correct any pathological condition we find, as far as possible, no matter of what nature. Displacements, ulcerations, erosion, or specific diseases. Specific diseases require specific treatment. We should resort to local applications, such as are best suited to each case, with mercurial inunctions; paying attention to diet, hygienic surroundings, etc.

I will bring out the treatment I have adopted in the following cases, which have all come under my observation in the last three years.

**CASE II.**—I was called to see Mrs. L., mother of two children. She had had no unusual trouble in her first pregnancy. She was then about the third month, had been suffering quite severely for the past month,

and had been confined to her bed two weeks, and during that time had not retained anything on her stomach but a few minutes; she had not slept for a week except a few minutes when under hypodermics of morphine. She had been attended by a physician before I was called, who had given her nearly everything in the catalogue of remedies, all of which had failed to do any good whatever, except the hypodermics which would produce a little ease. When I first saw her, she was almost in a state of collapse, pulse 140, skin clammy, trying to vomit every few minutes and begging for relief.

On vaginal examination, I found the impregnated uterus retroverted and incarcerated. The os under the pubes large and patulous to the touch. I had her take the knee-chest position and made several attempts before reducing the displacement, and finally succeeded with two fingers in the rectum. After dislodging the os and bringing it down, I introduced Sim's speculum to see the condition of the os—it was much swollen and eroded, and would bleed from the slightest touch. I made an application of argentum nitratus gr. xl to  $\frac{3}{4}$  j, dusted the os with iodoform and used a dry tampon of wool, filling the vagina quite full. She was suffering from retention of urine, which was first relieved by soft catheter.

She rested much better for the next thirty-six hours, vomited but a few times, and would sleep two or three hours at a time. The nausea then commenced to increase, the tampon was removed and a thorough application of the argentum nitratus applied, dusted the os with iodoform and tampon re-applied. She complained of a metallic taste in her mouth in a few minutes after the application. The relief was more marked. She gained strength and felt much better. The applications were kept up every second or third day for four weeks. The nausea would begin to return if the applications were left off too long. As the os became healthy she could do longer without the local treatment, till it was finally left off altogether. After the fourth month she went on to full term without any bad symptoms, and gave birth to a boy and girl, both healthy, well developed babies.

**CASE III.**—I was called to see Mrs. B., primipara, in consultation. She had been vomiting every hour or two and suffering with continued nausea for about two weeks. She was supposed to be about in the ninth week of pregnancy; she looked thin, with eyes sunken. I was informed that she had

not slept over one hour at a time (and that was from large hypodermic doses of chloral) and that every ordinary remedy had been used without relief. She first refused to undergo any uterine examination; but the next morning she consented to have anything done that offered a hope of relief.

On examination we found the uterus prolapsed slightly, os swollen and very much eroded. We made an application of argentum nitras, and applied a wool tampon to elevate the uterus. The first application relieved her, so that she got several hours sleep without the aid of an anodyne. Her attending physician kept up these applications for two weeks, and she improved rapidly and went to full term without further trouble.

**CASE IV.**—I was called sixteen miles from town to see Mrs. H., who was three months advanced in pregnancy. She had been suffering with severe nausea for four weeks, had not been able to retain anything on her stomach for the past ten days without suffering distressing nausea, till finally she would vomit and be partially relieved, but it would soon return and prevent her from resting or sleeping. I had been prescribing for two weeks before I saw her, and had given her nearly all the usual remedies at different times without any permanent effect. I gave her at once a hypodermic, as she was suffering very much. I made an examination and found the os swollen, red and puffy, and the cervix very much granulated.

I thought as I could not see her again very well, I would make a thorough application, so I applied equal parts of tincture iodine and carbolic acid well up in the cervix and around it, used the wool tampon with iodoform, directed it to be worn two days, and then to use a wash of borate of soda  $\frac{3}{ij}$  and tannic acid  $\frac{3}{ss}$  to a pint of hot water. She rested quite well that day and was better from that time on, although she suffered some for the next six weeks. I believe had I repeated the application every three or four days for awhile, she would have suffered but little more.

**CASE V.**—I was consulted about Mrs. W., mother of five children, she had not menstruated for nearly nine weeks; but had been irregular for the past four years; youngest child five years old. She was suffering from continual nausea and vomiting. She and her husband were in doubt about her condition, as she had been suffering a great deal with her stomach the past four years, and had always suffered during her previous pregnancies. I prescribed for her over a

week without any benefit. I then examined the uterus and found it considerably prolapsed, the os badly excoriated, looking very much like coxcomb ulcers. The cervix would admit the end of the finger, and this ulcerated condition extended up the cervical canal for three-fourths of an inch, and cleansing with cotton would cause blood to ooze freely from the parts. I commenced the treatment by using applications of pure carbolic acid, touching the diseased surface lightly, then dusting with a powder composed of three parts of iodoform, two of bismuth, and one of tannic acid, and placing a large tampon of wool under it to relieve the prolapsus.

There was a perceptible change after the first application, which was repeated every third day. Her stomach began to retain food and she would rest several hours with comfort. She would remove the wool the second night and use a wash night and morning. We soon noticed she would feel much worse on the third day, while going without support, so I made the application every second day for awhile, which made her much more comfortable. There was no change in the breasts or color of the vaginal surface to indicate pregnancy. The uterus was enlarged sufficient for the eighth week, so I went on with the treatment, in doubt, for three weeks. Then, by a careful comparison with the size now and when treatment was begun, I felt safe in telling her that she was pregnant. Treatment was continued for five weeks altogether. I made the application from three to four days apart toward the last. The excoriations of the os yielded nicely, and it looked quite smooth and well at the end of the five weeks. The applications, were, after the third, made with two parts tincture iodine to one of carbolic acid one time, and the next time with nitrate silver gr.  $\frac{xl}{3}$  to  $\frac{3}{j}$ . She complained several times of a metallic taste in her mouth after the silver applications. She is now in her eighth month of pregnancy and has felt much better after the fourth month than she ever did in any previous pregnancy. Before, she had vomited every day, all the term; but now, has not been troubled with nausea for three months.

**ANTIDOTE TO MORPHINE.**—The fatal effects of morphine may be counteracted, according to Kossa, by the joint administration of picrotoxin and paraldehyde in small doses. The paralyzing effect of picrotoxin on the respiratory muscles is obviated by the paraldehyde.

## NECROSIS OF THE FEMUR, OF 29 YEARS DURATION.

(Service of De Forest Willard, M. D.)

BY HOWARD S. ANDERS, M. D.,

LATE RESIDENT PHYSICIAN, PRESBYTERIAN HOSPITAL, PHILADELPHIA.

The following case is of interest chiefly as an illustration of the wonderful reparative powers of nature, as seen in the long struggle of 29 years in an attempt to rid herself of dead material. It shows, moreover, how necessary is the surgeon's skill to assist in the removal of large masses of bone, which nature can extrude only by the tedious process of liquefaction.

W. S. H., aged 45, white, single, without vocation, able to walk with a cane—not easily, however—was admitted into the men's surgical ward. The following history was elicited: In 1862, without known injury or prior disease, the patient first noticed a small swelling, purplish in tint and very painful, on the outer middle aspect of the left thigh. Extensive osteitis resulted, with burrowing of pus in all directions, so that small discharging sinuses opened in "twenty-five or thirty" places on the leg, above and below the knee. He was prostrated in bed for one year, in consequence. At various times pus was liberated from the thigh by frequent incisions. In 1863, the left knee became painful, red and swollen; the pain growing worse at night. Contraction of the "ham-string" tendons followed, and impeded motion in the joint progressively increased until admission into the Presbyterian Hospital, when only very slight flexion and extension was possible.

Upon examination, there were observed old linear cicatrices about the middle of both the inner and outer aspects of the diseased thigh; several discharging sinuses on the inner, and one on the outer side, in the scar-lines. The probe gave undoubted signs of loose sequestra in the lower portion of the femur. Although the man was rather thin and somewhat pale and weak, his general health was—in spite of the inveteracy of his necrosis—quite fair; his physical characteristics were those of the motive temperament.

Three days after patient's admission, Dr. Willard performed sequestrotomy. The incision was about four inches long, a little external to the line of the femoral vessels, in the lower third of the thigh. A cloaca was enlarged, with a chisel, sufficiently to admit

the blades of a Liston's forceps, and a very large sequestrum discovered. The thick, dense involucrum was partially chiselled away, and six inches of the condyles and lower portions of the shaft were found entirely dead,—and were removed; the sequestrum consisted of the entire lower portion of the bone. The bone cavity and the sinuses were curetted, douched and packed with aristolized gauze; a large calibred drainage-tube was inserted from within to an external counter-opening. The knee-joint was not involved by the necrotic process.

The patient rallied well from the immediate effects of the operation; but, about six hours afterward, inspection of the dressings showed that considerable bloody oozing had saturated them. Recurrent haemorrhage having been suspected, the resident removed the dressings and applied fresh antiseptic gauze with close packing and firm pressure. No pain was complained of; but the pulse was very weak, small and rapid. Faintness, pallor and nausea lasted for awhile, but passed off under active stimulation and the frequent administration of nourishment.

Drainage was effectual; and the wound did well and was kept packed and made to close by granulation. Convalescence was entirely satisfactory.

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SOCIETY REPORTS.

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## MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

SEVENTEENTH ANNUAL MEETING, HELD IN ST. LOUIS, MISSOURI, OCTOBER 14TH, 15TH, AND 16TH, 1891.

## FIRST DAY—MORNING SESSION.

The Association convened in the Pickwick Theatre, and was called to order at 10:30 A. M., by Dr. I. N. Love, Chairman of the Committee of Arrangements.

Prayer was offered by Bishop D. S. Tuttle.

The Address of Welcome was delivered by Hon. E. A. Noonan, Mayor of St. Louis, which was followed by addresses on the part of the State Medical Association, by Dr. W. B. Outten; the St. Louis Medical Society, by Dr. Ludwig Bremer, its President, and remarks by Drs. Harold N. Moyer and J. C. Culbertson, of Chicago.

After the report of the Chairman of the

Committee of Arrangements, which was an interesting and attractive one, Dr. C. H. Hughes, of St. Louis, took the chair and declared the Association ready for the transaction of its scientific work.

The first paper read was by Dr. W. Carroll Chapman, of Louisville, on "The Toxic Effect of Tobacco Vapor, With Report of Cases." (This paper was published in the *REPORTER* of October 24th, p. 653.)

#### FIRST DAY—AFTERNOON SESSION.

"The Treatment of Typhoid Fever." This was the title of a paper read by Dr. Robert C. Kenner, of Louisville, Ky., in which he directed particular attention to the cold bath treatment.

Dr. William Warren Potter, of Buffalo, followed with a paper entitled "Pelvic Inflammation in Women; a Pathological Study." The author affirmed that pelvic inflammations and their residues constitute about one-third of the diseases that gynaecologists treated, hence the importance of frequent discussions of all mooted questions relating to the subject. He briefly reviewed the anatomical relations of the pelvic organs, calling attention to their enormous blood and nerve supply, which became both their weakness and their strength. He contrasted the pathology of Bennet (1843) with that of Emmet (1873), and the latter with the teachings of Price, Tait, Hagar, and McMurtry of the present age. He referred to the pathological studies of Bermutz and Gouplil of thirty years ago, and affirmed that the observations of the present had served to confirm the correctness of those pioneers.

He next asserted that the pathology of to-day, had been established by operative surgery, which had shown that pelvic inflammation begins in the tubes or ovaries and extends to adjacent structures through absorption or by contiguity; that it almost never begins in the cellular tissue, but may be carried there through the tubes and ovaries by infections, either specific, puerperal, or traumatic. He affirmed that the inflammation was in most cases a peritonitis, intra-pelvic or local in character, and not a cellulitis; that para- and perimetritis were misleading and confusing terms, hence should be dropped; and that the so-called pelvic abscess was a sequence of salpingitis, ovaritis, or peritonitis, not a primitive accumulation in the areolar tissue itself.

The tentative management in these cases—rest, counter-irritation, hot sitz baths,

vaginal douches, and attention to the digestive organs and general health—resulted in only temporary improvement, or in cure in a very small percentage. Those reported cured were generally, if the history could be known, subject to repeated relapses; and a frequently recurring pelvic peritonitis usually indicated leaky tubes. Electricity, too, had disappointed even its most sanguine advocate, and need not be considered.

In conclusion he asserted that if the views be accepted the logical deduction was to watch the early manifestations of the disease carefully, that competent surgical skill be invoked before the damage to important structures becomes too great to justify the expectation of successful operation.

Dr. Geo. F. Hulbert, of St. Louis, read a paper on "The Nervous Equation of Pelvic Inflammation."

Dr. L. T. Riesmeyer of the same city, contributed a paper entitled "Pathology and Surgical Treatment of the So-called Strumous Inguinal Lymphadenitis."

#### SECOND DAY—MORNING SESSION.

The Association was called to order by President Hughes at 10 A. M.

Prayer was offered by Rev. S. J. Nicols, of St. Louis.

Dr. Rufus B. Hall, of Cincinnati, Ohio, read a paper on "Complications During and Following Abdominal Operations."

Dr. Arch Dixon, of Henderson, Kentucky, followed with a paper entitled "Gastrostomy for Impermeable Stricture of the Cardiac End of the Oesophagus; Recovery; Subsequent Dilatation of the Stricture." On July 14th, of the present year, Dr. Thomas W. Taylor consulted him in regard to a patient who was unable to swallow anything save liquid. The patient, Captain S., aged 54, weight previous to difficulty in swallowing, 230 pounds, at the time of examination 156 pounds. Examination by means of cesophageal bougie (smallest size) revealed the fact that complete stenosis of the cesophagus existed at the cardiac end. Repeated trials failed to pass the stricture and the patient was informed that only an operation, the nature of which was explained to him, could prevent his death from starvation. Operation was declined. Again on July 29th, the patient consulted him and after persistent effort he failed to pass the stricture with the smallest bougie. He was requested by the author to go before the Henderson County Medical Society, which held a meeting that afternoon and be examined. To this the patient consented and

again an attempt was made to pass the stricture by a number of physicians present, without success. A statement of the case was made by Dr. Dixon and the unanimous opinion was expressed to the patient that only an operation could save his life. The patient had by this time grown much weaker and was reduced in flesh to 140 pounds. The operation was now consented to and on August 4th, at the Home Mission Sanitarium, assisted by Drs. John Young Brown, W. M. Hanna, W. S. Stone, A. J. Lieber, and T. W. Taylor, Dr. Dixon did a gastrostomy after Hacker's method, as follows:

The patient was prepared in the usual way, the field of operation being made as nearly aseptic as possible. Chloroform was administered by Dr. T. W. Taylor. The incision was made four inches long, beginning one inch below the ensiform cartilage and an inch and a half to the left of the median line; the peritoneum was reached, caught up between forceps and divided the full length of the incision. The index and the middle fingers were inserted, the transverse colon pushed downward and the stomach reached without difficulty; a fold was caught between the fingers and partially drawn through the wound, where it was held by Dr. Brown, while a careful search was made for the cardiac end and to detect, if possible, any tumor or enlargement which might be the cause of the stricture; none could be discovered. A silver pin was now passed through the fold of the stomach, which was drawn through the wound, a little above the level of the skin, care being taken that the pin pierced the mucous membrane, as suggested by Weir, thus forming a support for the stomach in the wound and serving as a guide when the opening should be made into it to show that the cavity was reached. The pin was about three inches long and rested on the skin on either side of the wound; the peritoneal coat of the stomach was now stitched to the peritoneum by a continuous suture which on either side of the wound included the skin. The peritoneum above and below was brought together by interrupted sutures, which embraced muscle, fascia and skin as well.

The wound was now covered with iodoform collodion over which iodoform gauze was placed, confined by adhesive strips. The opening into the stomach was purposely deferred until adhesions should have formed. The patient recovered from the effects of the anesthetic well. There was some pain of a darting character, which was relieved by

hypodermic injection of morphia  $\frac{1}{4}$  gr., and atropia  $\frac{1}{16}$  gr. The operation was finished at 11 A. M. At 6 P. M. temperature was  $99^{\circ}$ ; pulse 78. August 5th, temperature  $98\frac{1}{2}^{\circ}$ ; pulse 72. Temperature and pulse remained normal until the morning of August 7th, when the dressing was removed.

A few drops of cocaine were injected into the fold of the stomach which protruded through the wound and the gastrostomy was completed by cutting down upon the pin with a tenotome. As in Weir's case, the presence of the pin was a valuable guide in showing beyond question that the cavity of the stomach had been entered. There was no hemorrhage of moment. The adhesions being firm, the pin was withdrawn and the mucous membrane was drawn up and stitched to the skin. A rubber tube was now passed into the stomach through the opening fitting it snugly. Iodoform collodion was liberally used around the tube and over the abdominal wound. Iodoform gauze folded several times, through which a hole was cut for the tube, came next, covered by a piece of rubber sheeting. Borated cotton held in place by adhesive strips completed the dressing. The tube was kept *in situ* by a thread passed through it above and below, and the thread held in place by adhesive strips. Peptonized milk,  $\frac{1}{2}$  pint with a tea-spoonful of Mosquera's beef-meal was now injected through the tube into the stomach by means of a large syringe. An ordinary spring clothes pin was used as a clamp for the tube. Six hours later another one-half pint of milk with the beef-meal was thrown into the stomach, the patient experiencing a satisfaction which had not been experienced previously from the use of nutritive enemas. Temperature at 8 P. M. reached  $101^{\circ}$ . At 10 A. M., August 8th, it had again fallen to normal. The feeding was continued at intervals of six hours, the food being varied in character; chopped meat, eggs, bread, etc., the patient having an aversion to brandy, and would take no stimulant of any character. Improvement was steady and in ten days the patient was out of bed. In two weeks he was walking about the house, and in three weeks was down in the city, a distance of one-half mile from the Sanitarium.

On the 28th day of August, twenty-four days after the primary operation, and twenty-one days after the stomach was opened, Dr. Dixon determined to try dilatation, and was agreeably surprised to find that the smallest size, olive-pointed bougie entered the stomach, passing the stricture without difficulty;

a size larger was now used and it passed also without force.

The following day a large stomach tube was passed down the oesophagus and with little difficulty entered the stomach. Dilatation was continued at intervals of a few days. From liquid food the patient soon essayed some solid food, and on September 10th took his first square meal, which consisted of oysters, broiled beefsteak, coffee, eggs and bread. The patient left the Sanatorium, and he was thinking seriously of closing the abdominal opening, or allowing it to close. On September 23rd, the patient, who made daily visits to his office, complained again of difficulty in swallowing solid food; especially was there difficulty in swallowing bread. The bougies passed the stricture easily on entrance, but on withdrawal there was a decided hitch; even the smallest bougie was caught slightly when withdrawn. Dr. Dixon at first attributed this to spasmodic action, but the difficulty grew greater and greater, until finally he could no longer enter the stomach by way of the oesophagus with a bougie. Liquids could still be allowed and found their way into the stomach. He now determined to try retrograde dilatation, and on September 30th, assisted by Dr. John Young Brown, he succeeded in finding the cardiac end of the oesophagus and entering it with a very small *bougie-a-boule*. The opening was about the size of a very small shirt button-hole and felt much like the meatus urinarius in a girl; it was surrounded by a hard tissue, feeling much like a fibroid. A uterine sound was next properly bent and with the finger as a guide, passed into the oesophagus; this was followed by a uterine dilator; slight pressure on the handles opened the blades almost half an inch, but the patient experienced so much pain that it was deemed best to desist. The following day chloroform was administered and retrograde dilatation was accomplished, first by means of G. Wylie's uterine dilator, the use of which enabled him to enter the orifice with a large size bougie (rectal).

Up to this time he had not been able to determine whether the stricture was due to malignant trouble or not, but on passing the finger into the non-dilated oesophagus, a friable irregular growth was detected, which easily broke down and bled rather freely. A piece of this growth was twisted off by forceps and was sent to Formad, of Philadelphia, for examination. Since the dilatation the patient has been able to swallow solid food without much difficulty and has notably

improved in flesh and strength, and is able to attend to some business.

The author wished to acknowledge his indebtedness to Dr. Robert F. Weir, of New York, for many valuable suggestions, both in the performance of the operation and in the management of the case afterward, gleaned from his report of a similar case published in the *Medical Record*, July 25, 1891.

Dr. Dixon also exhibited the patient to the Association.

Dr. L. Ch. Boisliniere, of St. Louis, exhibited a new obstetric forceps of his own design.

#### SECOND DAY—AFTERNOON SESSION.

Dr. J. W. Carhart, of Lampasas, Texas, contributed a paper on "The Influence of Grave-Yards on Public Health," in which he drew the following conclusions:

1. From whatever standpoint this subject is approached it must be with care and gentleness, since the grave-yard, though a constant menace to public health has a pseudo-sacredness fostered by the profoundest sentiments of our natures.

2. The method of the disposal of the dead should be founded on reason and not on custom or sentiment.

3. The interment of the dead in the earth was never enforced by a statue, Jewish or Christian, and was merely incidental to both dispensations.

4. No law, human or divine, requires us to dispose of the dead in a manner prejudicial to the health and comfort of the living.

5. Whilst it may be an open question as to the right of the state to decide as to the manner of the disposal of the dead, except in exceptional cases, it is clearly the province and duty of the state to prevent such disposal as will in any wise jeopardize the interests of the living.

6. From all the facts at our command, we are led to the conclusion that the grave-yard should become a thing of the past, and that incineration is the method most in accordance with science, sanitation, aesthetics, reason and religion.

7. We would add, as a corollary to these several conclusions, that since the intelligent, broad-minded physician is the almost exclusive guardian of public health in seeking to prevent the development and spread of disease, it is plainly his duty, when cemeteries are being located, to use his best endeavors to have them so placed as to jeopardize as little as possible the public health; and for its moral effect he should encourage

efforts to beautify existing cemeteries; and that he should seek, as fast as possible, without too much violence to the tender sensibilities of the masses, to encourage incineration of the dead, or some other method more in harmony with sanitary science than the common modes now practiced.

Dr. J. T. Jelks, of Hot Springs, Ark., read a paper on "Bleorrhœa."

Dr. Landon Carter Gray, of New York, followed with a paper on "The Present Aspect of Cerebral Surgery," in which he epitomized the work of Horsley, Ferrier, Keen and others.

Dr. John A. Larrabee, of Louisville, Ky., read a paper entitled: "The Importance of Recognizing a Temporary Rachitic Condition in Infants."

Dr. F. C. Hoyt, of St. Joseph, Missouri, read a paper entitled "Pachymeningitis Hæmorrhagica Interna, with report of a case and Presentation of a Pathological Specimen," and suggested the following deductions, offering them as a practical and rational view of the subject:

1. That the disease known as pachymeningitis hæmorrhagica interna chronica, is not a disease of the dura mater primarily, and not necessarily at all. The name is, therefore, a misnomer, and the simpler term, sub-dural hematoma, should be substituted.

2. That the condition is due primarily to paralysis or loss of the normal vaso-motor tonus, associated with structural changes in the cerebral vessels, particularly those of the pia mater.

3. That hæmorrhage may, and often does, take place in the substance of the dura from the causes stated in the paper, but that its vascular supply and anatomical structure render it improbable that these hæmorrhages play any part in the formation of a sub-dural hæmatoma.

4. That the hæmorrhage occurs from the vessels of the pia mater primarily, forces its way without difficulty through the upper web-like layer formerly called the arachnoid, escaping into the sub-dural space. The extravasated blood becomes organized, new vessels are formed, and these assist in furnishing the recurrent hæmorrhages.

5. That the inflammation of the internal surface of the dura mater is secondary and due to the irritation of the extravasation, and then is not general, but occurs only in patches where organic union has taken place.

Dr. Seth S. Bishop, of Chicago, in a paper entitled "Camphor-Menthol in Catarrhal Diseases," reported a large number of cases

of naso-pharyngeal catarrh, hay fever and diseases of the ear as having been treated with camphor-menthol with much better results than menthol alone produces. The presence of the camphor appears to intensify the action of menthol.

A number of hay fever sufferers, among them the President of the U. S. Hay Fever Association, have obtained greater relief from this inhalant than from any other they have ever tried. The effect of the camphor-menthol in reducing turgescence and consequent tumefaction of the turbinate bodies has rendered a contemplated operation for stenosis unnecessary in several cases cited.

Injections of a ten per cent. solution of lanolin into constricted Eustachian tubes have caused them to become patulous. The improved ventilation of the middle ear thus effected, together with inflation with a five or ten per cent. spray of the same liquid in hypertrophic tympanic catarrh increased the hearing and produced a sense of clearness and comfort in the head.

Cases of laryngitis with the voices reduced to a whisper were treated with inhalations varying from five to twenty per cent. in strength with the result of restoring the voices completely in from twenty-four to forty-eight hours.

No ill results have followed the use of this remedy in the nose, throat, larynx or middle ear. The ordinary strength of inhalations recommended by Dr. Bishop was three or five per cent. for very susceptible or sensitive individuals like hay fever patients, and ten per cent. for less nervous persons with hypertrophic catarrh, etc. In order to reduce great swelling of the turbinates and relieve stenosis, the solution should consist of twenty or twenty-five per cent. of the camphor-menthol. The full strength of camphor-menthol applied to eczematous eruptions relieved the itching and dissipated the redness and swelling. Similar results followed its application to herpetic eruptions.

Finally, camphor-menthol contracts the capillary blood vessels of the mucous membrane, reduces swelling, relieves pain and fulness of the head, or stenosis, arrests sneezing, checks excessive discharges and corrects perverted secretions.

Dr. F. King, of New York, read a paper in which he advocated the poro-plastic felt jacket in the treatment of spinal troubles.

#### SECOND DAY—EVENING SESSION.

The Association was called to order at 8 P. M., by the Second Vice President, Dr. S. S. Thorn, of Toledo, Ohio, after which Pres-

ident Hughes delivered his address on "Medical Progress."

He reviewed the history and progress of medicine and surgery. He said it was gratifying to the humanitarian student of scientific medicine to note the amazing progress lately made in the knowledge of the human organism and in resources for its regulated control in health and disease. He referred to the wondrous laparotomies of Tait; the brilliant craniotomies of Victor Horsley; and the abdominal sections of Senn.

He also said the memory of Harvey, Jenner, Jackson, McDowell, and a host of others, is not yet fully appreciated by the world at large. But their deeds will shine brighter and brighter as the world comes to know them and fully realize as we do their incomparable benefactions, their unsurpassed greatness, and their unequalled heroism.

Dr. J. B. Hamilton, of Chicago, followed with an address on "The Drainage of Chicago," in which he principally dwelt upon its topography.

Dr. Joseph M. Mathews, of Louisville, delivered a timely, entertaining and remarkably humorous address on the "Lights and Shadows of a Doctor's Life." The address was punctuated throughout with great applause, and was a relief to the laity after listening to the profound, scientific, scholarly addresses of the preceding speakers.

At the close of the session the members repaired to the Lindell Hotel, where a banquet was given with all the manifestations of true St. Louis hospitality. Dr. I. N. Love acted as Toastmaster.

#### THIRD DAY—MORNING SESSION.

Mr. Charles Truax, of Chicago, read a paper (by invitation) entitled "Are Conservative Amputations always in the Interest of the Patient?" He said that during the past quarter of a century the development of prosthetical science has advanced with a rapidity unprecedented in the history of the art. The first of the two great causes which stimulated this development may be found in the dreadful carnage and mutilation observed in the late civil war, which left thousands of veterans maimed by the loss of one or more limbs, for whom it was necessary to provide artificial substitutes. Experience and investigation had convinced him that the percentage of favorable cases can be largely increased, provided surgeons will familiarize themselves with the necessary mechanism of ordinary artificial legs and the relations existing between them and the stumps on which they are to be worn and

select their point of amputation accordingly.

From a statistical point of view he finds that out of 2,135 tibial amputations reported to him as being performed between the years 1885 and 1891, 90.7 per cent. resulted in healthy stumps; 3.1 per cent. of stumps upon which compensative appliances could not be worn. Of these tibial cases, 962 were seen by the surgeons after they were wearing, or had attempted to wear, an artificial limb, 86.9 per cent. of which walked with an easy movement and a comparatively graceful step. Of 658 tarsal and tibio-tarsal amputations reported at the same time, 62.7 per cent. resulted in sound, healthy stumps; 8.3 per cent. underwent re-amputation; while 3.2 per cent. died, leaving 14 per cent., including re-amputation upon which prosthetic apparatus could be worn. Of this class of cases, 169 seen after attempting the use of compensative appliances, 54.4 per cent. of which could walk well.

If we can judge from the foregoing statistics, in over 100 cases of each of these classes of operations, we may reasonably expect the death loss to be in favor of tarsal operations as 30 to 3.2 per cent.; while the ratio of re-amputations necessary will be in favor of tibial amputations, as 8.3 is to 3.1.

He recommended surgeons to avoid amputating within three inches of the knee-joint. Do not amputate between the metatarsal bones and the junction of the lower and middle thirds of the tibia. At all other points they should save all they could, and then they will have done, in every case, the best for their patients.

"Intestinal Obstruction."—This was the title of a paper read by Dr. Henry H. Mudd, of St. Louis, in which he advised early operation.

Dr. C. H. Dalton, of St. Louis, read a paper entitled "Temperature no Guide in Peritonitis." So skeptical had he become on the subject that in considering the advisability of an operation in abdominal cases, he was no longer guided by the thermometer. He takes the temperature in all cases, but does not let the lack of fever influence him against operation, when other symptoms, upon which he had learned to place far more reliance, would move him in the opposite direction. Surgeons found it difficult to convince the average physician that a violent peritonitis may exist without a normal or even subnormal temperature, for the teaching by some has heretofore been that sepsis is always accompanied by an elevated temperature.

Several weeks since he was called in con-

sultation in a case of intestinal obstruction in which peritonitis was in full blast. He advised operation and was met with the objection that there could not be much peritonitis with a temperature of 99.50. He pointed in vain to the patient's anxious countenance, to the great tenderness on pressure, a distended belly, the vomiting, the pulse, as well as to the fact that purgatives had been tried without avail. The doctor in attendance insisted upon one more dose of salts. It was given, it did not move the bowels, but it did move the patient to that place from whence no traveler returns. Time and again he had seen cases of intestinal obstruction with sterco-raceous vomiting, rapid pulse, anxious countenance (facies abdominalis), in which the temperature was about normal or even subnormal.

In his earlier experience the lack of fever in abdominal cases puzzled him very much and led him astray in a number of instances. While it is well to remember that fever when present in belly cases indicates peritonitis, its absence does not warrant us in saying that peritonitis is not present, and should not blind us as to the actual condition.

"Sarcoma of the Dorso-Scapular Region." —Dr. Geo. N. Lowe, of Randall, Kansas, read a paper on this subject. He reported a case upon which he had operated, the patient, a man, aged 18 years, with no history of tuberculosis, carcinoma or sarcoma, recovering. The object of the paper was to show:

1. The necessity of an early operation in all cases of a malignant growth.
2. That some species of sarcoma are more rapid and destructive in their course than carcinoma, especially the spindle and giant-celled variety.
3. The necessity of having a law to enforce patients so afflicted, as soon as a correct diagnosis can be made, to an early operation, thereby preventing great suffering and prolonging life.
4. That in a sarcoma which has grown to an enormous extent, infiltrating the surrounding tissues at any considerable extent from the main growth with cell proliferation, an operation is almost useless as regards a permanent cure.

Dr. W. H. Linke, of Petersburg, Indiana, read a paper on "Appendicitis," and offered the following conclusions: In the commencement of the attack, give salines often and liberally till the gut is completely emptied. Advise perfect rest in bed. Forbid any but liquid nourishment. If pain is

severe apply counter-irritation and dry heat till salines act. If patient improves, wait. If pulse grows worse, if temperature rises, if pain increases, if tumefaction becomes larger, if tenderness becomes more marked, operate. At no time, give morphine, but consider an increase of pain sufficient to demand relief by opium an imperative, unequivocal and emphatic indication for surgical interference.

"Rheumatism and Gout as Factors in the Causation of Eczema, and the Management of Those Conditions," was the title of a paper contributed by Dr. A. H. Ohmann-Dumesnil, of St. Louis. He did not purpose speaking of the etiology of eczema. The only phase which he desired to take under consideration was, in how far rheumatism and gout were concerned in the causation and prolongation of eczema, and what was the proper management of those conditions in order to derive the greatest benefit, so far as the cutaneous involvement is concerned. Naturally this implied that he was about to sustain the position that the conditions named were etiological factors, and such was probably the case. If we took the trouble to examine critically the history, condition, treatment and results in patients, a mass of evidence would be found, which, if it did not constitute absolute proof, bore so much weight with it that the probabilities would all tend to confirm and strengthen the position that rheumatism and gout prolong, intensify, and even cause eczema. He had found it to be quite frequent also to note the fact that an acid condition was present in eczematous patients. It occurred too frequently to be regarded as a coincidence. Moreover, a correction of this acid condition finds its good effects reflected in the ease with which the cutaneous trouble gave way to proper medication. Whether such cases were inclined to rheumatism or gout it was difficult to say; but that an excess of acid was found in all of these conditions there was no opportunity of denying. For, if eczematous patients were interrogated in this respect a large proportion of them would speak of acid eructations, pyrosis, and other evidences of the condition.

In regard to the management of gout and rheumatism, volumes had been written and equally good results had been claimed for different methods of treatment. The most powerful alkali to effect the solubility of uric acid was, beyond all doubt, lithia. The urates of the alkali are the most soluble known, and, on that account, a better elimination can be secured. Potash salts rank

next in value in regard to their solvent value upon uric acid. The soda salts, while exercising a good influence, are not as valuable in this respect as either of the others; and the magnesia salts are the least effective.

A question of no mean importance was that concerning the solubility of the various alkaline salts. Chemical investigation has clearly demonstrated that the bicarbonates of lithia, potash, and soda are not only the most soluble, but the most easily assimilated by the animal organism. To prevent any decomposition it is only necessary to dissolve them in carbonated water, which not only keeps them in a soluble state but also adds to their palatability.

Dr. Enno Sanders, of St. Louis, has prepared a well known lithia potash water, which fills all the indications required, and which acts not only as an anti-rheumatic, anti-lithic, and anti-gouty mixture, but constitutes a grateful table water as well. It not only acts as a curative remedy, but, what is of still greater importance, it is a reliable prophylactic. Its composition is as follows:

R

Lithium bicarbonate.....	gr. xiii.
Magnesium bicarbonate.....	gr. x.
Potassium bicarbonate.....	gr. xv.
Sodium chloride.....	gr. x.
Carbonated water.....	3 xvi.

M. This quantity, one pint, should be taken daily, or the amount increased if deemed necessary.

Conditions occasionally arise in which it will be found that a mixture of salicylate of soda and bicarbonate of soda will effect the happiest results in rheumatism, and occasionally in gout. Given in carbonated water the administration is made pleasant, and the mixture has an effect upon the patient which is refreshing at the time it is taken, and which effects beneficial results in a very short time. When eczema is present the proper local remedies should be made, and it is astonishing how their action will be accentuated by the internal use of the alkalies as indicated above.

Dr. C. A. L. Reed, of Cincinnati, Ohio, read a paper entitled "Observations on the Management of Uterine Tumors", in which he said that there are certain solid tumors of the uterus that require no operation. They are for the most part comparatively small neoplasms, either interstitial or subserous; they are indolent in growth, and they do not produce alarming symptoms from either pressure or hemorrhage. There are certain other myomata of the uterus that are uniformly recognized as demanding operation. They are for the most part rapidly growing tumors in young subjects, removable fibro-cystic tumors; soft edematous tumors; large

bleeding fibroids, and those growths which give rise to ascitic accumulations.

Dr. Reed offered the following conclusions:

1. That all persistently hemorrhagic uterine myomata of whatever variety should be advised to early operation.

2. In young subjects, with multi-nodular tumors giving rise to alarming hemorrhage, the appendages should be removed when practicable as an alternative for extirpation. But the latter operation should be done whenever the character of the growth will permit of its removal by dangers less than those which would be involved by its continued existence.

3. To those tumors already recognized as demanding operation should be added those of uterine development that are liable to dangerous constriction by the uterine walls and in which their destruction by this means might induce sepsis.

4. All cases of subserous growth, indolent, yet progressive in character in which the tumor has become a menace to neighboring organs, should, whether hemorrhagic or not, be advised to exploratory incision with reference (1) to removal of the appendages, or (2) of the neoplastic organ.

5. All growing tumors, in women beyond the menopause, should be removed, if possible, by vaginal total extirpation, or, if that be impracticable, by abdominal section.

6. All distinctly operable cases demanding interference should be advised to submit to operation at the earliest practicable moment.

"The Etiology and Treatment of Granular Conjunctivitis". This was the title of a paper contributed by Dr. Francis Dowling, of Cincinnati, Ohio.

Dr. Dowling stated that the great role which the disease plays in the causation of blindness, renders its successful treatment one of the great desiderata of our day. Its great hot-beds are in some of the countries of the Orient, owing to the prevalence of whirlwinds of sand, and the intense heat and glare of the sun. The malady attacks by preference the poorer classes; the rich and well fed enjoy a comparative immunity from the disease. It is most frequent in persons between the ages of 15 and 45; children under six rarely have the disease. It does not become epidemic at a height of over 250 metres above the sea level, and it loses its contagious character at this height. Low regions and swamps favor its spread. It is highly contagious; probably three-fifths of the blindness throughout the world are di-

rectly or indirectly due to this disease. There is often some special liability on the part of certain individuals to the contraction of the disease, owing to the presence of a special diathesis, or otherwise.

**Treatment.**—Personally he had more success by touching the lids with the mitigated stick of *argentum nitras*, and then immediately washing it off, than with any other remedy. He applies the treatment usually twice a week, and on the intervening days he rubs in an ointment composed of yellow oxide of mercury and atropine. He also corrects any trouble of refraction that may exist, for unless this is attended to, the disease will persist under all kinds of treatment.

The disease is now treated in Paris, France, by completely everting the lid, and scarifying the granular tissue, then rubbing in with a stiff brush a 1-500 solution of bichloride of mercury. Cases are cured in this way in four to six weeks, that formerly took several years to cure with the old treatment. In outbreaks of the disease in orphan asylums, barracks, etc., the afflicted should be completely isolated from the healthy inmates, and their apartments should be kept absolutely clean, and fumigated with burning sulphur at least once a week.

Dr. John Bartlet, of Chicago, presented a paper in the form of a review of an obstetrical work, published in Paris in 1682 by Paul Portal. He said the older members of the profession had for years rested in the opinion that it was Paul Portal to whom obstetrical science was indebted for the discovery of the fact, that in *placenta prævia* the after-burden was attached to the womb, and had not simply fallen down over it, as was taught by writers before his day.

Dr. G. Frank Lydston, of Chicago, followed with a paper entitled "Observations on Urethral Stricture," in which there were many striking original points. The author opposed the general impression prevalent among surgeons that the long duration rather than the severity of a virulent urethritis determined the development of organic stricture. He claimed that this view has been due to fallacious reasoning from the standard of *post hoc ergo propter hoc*. It is not the long continued urethritis that produces a deposition of the adventitious tissue constituting organic stricture. On the contrary, a chronic localized urethritis exists because the stricture, or the foundation of it has been determined at some portion of the urethra by the primary virulent inflammation. He claimed that the liability to the formation of organic stricture is directly

proportionate to the severity of the primary inflammation. The localization of stricture, the author claimed, was not due as Sir Henry Thompson and his school assert, to an obstruction to drainage and the retention of the products of virulent inflammation, but to deficient elasticity or distensibility of the canal at certain points. The conditions determining stricture he compared to those prevailing in a rubber tube about which cords are tied in such a manner that while some actually constrict the tube, others simply prevent its distension. If fluid be pumped through a rubber tube thus constricted or restricted, as the case may be, at a certain degree hydrostatic pressure, and at certain intervals friction, occurs at these points and produces a continual unrest. The epithelium is rapidly removed, its vitality being impaired by the virulent poison of urethritis. By and by rapid removal and reformation of epithelium becomes a cell habit, the resulting formation of cells being of a low grade of inherent vitality. In addition to this change upon the surface of the mucous membrane there is deposited young connective tissue cells in and about the affected point as an evidence of an attempt on the part of nature to secure rest and prevent strain. These cells the author likened to sandbags thrown up to strengthen or prevent a breach, as the case may be, in a fortification.

The doctor called attention to a number of interesting reflex phenomena incidental to stricture of the urethra. He also went inexhaustively into the various toxæmic conditions incidental to renal disturbance secondary to stricture, and to that peculiar form of toxæmia incident to the absorption of ptomaines from the site of the urethral lesion. He went into the subject of electrolysis and absolutely denied the possibility within the limits of safety of using it in the treatment of organic stricture. Galvanism, he claimed, instead of electrolysis is what is really accomplished. He condemned the routine and extreme claims of Newman, and also the other extreme as represented by Dr. Keys, who asserts that galvanism, i. e., so-called electrolysis has absolutely no effect. Dr. Lydston claimed that the effect of galvanism upon organic stricture of the urethra was the same in its physiological character as upon healthy or morbid tissue in any other situation. The author described what he terms *plus* conditions of organic stricture. Thus we have engrafted upon the organic foundation varying degrees of hyperæmia, spasms, and cedema, one or all. These *plus* conditions the author claimed, galvanism, properly

applied, would subtract from the organic condition in certain cases, and in so far as this effect was marked the stricture would be benefited. The author denied the possibility of the galvanic current producing absorption of fibro-connective tissue after it had arrived at the acme of differentiation by any current which will not destroy the mucous membrane itself; in other words, we cannot control the galvanic current so that it will exert a selective action and remove the abnormal tissue while sparing the normal tissue.

The following officers were elected:

*President*—Dr. C. A. L. Reed, Cincinnati, Ohio.

*First Vice-President*—Dr. C. S. Bond, Richmond, Indiana.

*Second Vice-President*—Dr. Thomas Hunt Stucky, Louisville, Kentucky.

*Secretary*—Dr. E. S. McKee, Cincinnati, Ohio.

*Chairman of the Committee of Arrangements*—Dr. Joseph Ranshoff, Cincinnati, Ohio.

Place of next meeting, Cincinnati, October, 1892.

### SELECTED FORMULÆ.

#### COCAINE AND ANTIPYRINE COMBINED AS A LOCAL ANÆSTHETIC.

Dr. D. Stuver (*Hygiea*, No. 3, 1891) praises a solution of five parts of cocaine and fifteen parts of antipyrine in one hundred parts of water as a very efficacious local anæsthetic for minor surgical operations. The action of this mixture he states to be more intense and longer lasting than that of cocaine alone. It has also been successfully employed in cases of obstinate vomiting.

#### FERRO-IODIZED CODLIVER OIL.

Ch. Diete gives the following in the *Chemische Zeitung*:

R: Porphyrized iron..... grammes iv.  
Iodine..... " 8.20.  
Ether..... " lxx.

Mix and agitate until all the iron is converted into iodide. Then heat in a water-bath 200 gm. of codliver oil; add the etheric solution of iodide of iron and continue the heat until the ether is driven off. Let cool, and filter. This preparation should be preserved in small containers only.

#### THIERSCH'S ANTISEPTIC SOLUTION.

The extensive use of Thiersch's solution (named after a German surgeon) in many modern abnormal, intestinal and bladder operations, conducted in hospitals and frequently at the patient's residence, and in urethral and uterine irrigations performed at the surgeon's office, has induced Adolph Levy to recommend the combination of this solution (consisting of salicylic acid 3 parts, boracic acid 12 parts, in 1.000 parts of water), in form of compressed tablets each containing:

R: Salicylic acid, resublimed..... gr. xiv.  
Boracic acid (boric) resublimed..... gr. lxxxiv.  
Compressed in form of tablets.

To each tablet is measured sufficient distilled hot water to measure one pint. The solution may be prepared as needed.

#### TYPHOID FEVER.

In an interesting article on this disease, I Burney Yeo quotes the following two prescriptions. Both have been thoroughly tested and highly recommended. The first is by Dr. Wilks:

R: Sulphurous acid..... m. xx.  
Water..... f. 3.1.  
Syr. aurant. cort..... f. 3.1.  
Sig. At a dose every four hours.

The following is given by Dr. H. C. Wood:

R: Ol. caryophyli..... gtt. vi.  
Ol. terebinthinae..... 13 ss.  
Glycerini.  
Mucil. acacia, as..... f. 3 ss.  
Syr. et. aq. ad..... f. 3 iii.  
Sig. Dessertspoonful every two hours during the day, patient being allowed rest at night.

Yeo has tested chlorine water and obtains excellent results. His prescription is as follows:

R: Potas. chloratis..... gr. xxx.  
Ac. hydrochlor. fort..... m. xl.

Place in a 12-ounce bottle and cork. When filled with gas add water gradually and shake. Then add—

R: Quin. sulph..... gr. xxiv-xxxvj.  
Syr. aurant. cort..... 3 j.  
Sig. One ounce every two, three or four hours, according to the severity of the case.

—*Lancet*, April 11, 1891.

#### LOCAL ANÆSTHESIA MIXTURE FOR SMALL OPERATIONS.

Dobisch, (*La Rassegna di Scienze Mediche*, No. 2, 1891) used the following mixture as a spray to produce local anæsthesia for minor operations:

R: Menthol..... parts 1.  
Sulphuric ether..... " 15.  
Chloroform..... " 100.

Anæsthesia is complete, profound, and lasts two to six minutes.

November 14, 1891.

Editorial.

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LEADING ARTICLE.

THE ETIOLOGY AND TREATMENT OF PUERPERAL ECLAMPSIA.

There is no acute disease which should demand greater consideration, as regards pathology and treatment, than puerperal eclampsia. In support of this assertion it is only necessary to refer to the high mortality (both to mother and child), the alarming suddenness of its onset very frequently, and the fact that the mind of the profession is by no means made up regarding the causation of this grave affection and the best means with which to combat it.

In 1842 Lever discovered that in the great majority of cases of puerperal eclampsia, albumin is present in the urine, and since that time the condition of the kidneys has been considered one of the most important factors in its etiology.

At the annual meeting of the British Medical Association, a most interesting discussion was held upon this subject by several prominent English obstetricians, and it may be of interest to briefly review some of the opinions expressed, since, from the high professional status of the assemblage, their utterances must be regarded as more or less authoritative. The causation of puerperal convulsions has been a rich field for discussion, and, with the increasing number of theories advanced during late years, it would seem that in the present state of our knowledge, definite conclusions are as far away as ever. This difficulty is, however, more apparent than real, for a careful study of the whole subject seems convincing that much light has been thrown upon both pathology and treatment by the carefully recorded clinical observations and experimental studies which have been made. A great deal of valuable negative knowledge is available, and also much that is positive, confirmed by repeated bedside experiences.

At the meeting already referred to (Annual Meeting Brit. Med. Ass'n, Section of Obstetric Medicine, Bournemouth, July,

1891), the etiology of puerperal eclampsia was discussed in three divisions, as follows :

I. The causation of that form of albuminuria which is associated with eclampsia.

II. The relation between the albuminuria and the convulsions.

III. The explanation of those cases in which the urine is at first free from albumin, and the albuminuria only appears after the convulsions; also of the exceptional cases in which albuminuria is absent throughout.

Regarding the first question, or the causation of the albuminuria so frequently present in such cases, Dr. Galabin referred to the theory of Dr. Blane, of Lyons, who has isolated a specific bacillus from the urine of patients having puerperal eclampsia, which he regards as the primary cause of both the convulsive phenomena and the kidney lesion. In support of this theory Dr. Blane found that the injection of pure cultures of his bacillus into pregnant rabbits was followed by eclampsia, dyspnoea, and death; while in non-pregnant rabbits only local inflammation was produced at the point of injection. Therefore, Dr. Blane has reasoned, the bacillus is the primary cause, and that a poison is developed within the body which produces convulsions and nephritis by direct action upon the nervous centres and the kidneys. Dr. Galabin rejects this theory from lack of proof and because it would render puerperal convulsions a zymotic affection to which only pregnant women and rabbits are liable, and he prefers to believe in the uremic origin of the eclampsia, even if the production of the nephritis cannot at present be satisfactorily explained. As powerful predisposing causes of albuminuria in primiparae, he mentioned the increased intra-abdominal pressure of pregnancy which interferes with the renal circulation, and also the depressed state of the nervous system so often attendant upon a first confinement. Dr. John W. Byers, referred to the paper of Leyden, (*Deutsch. Med. Wochenschrift* March 4th, 1886), who considers the kidney lesion, associated with puerperal eclampsia, as a *special form* of nephritis, due to prolonged arterial anæmia, the primary causes of which,

he thinks, is the altered intra-abdominal pressure.

Another interesting theory regarding the cause of albuminuria is that proposed by Stumpf, which is that a toxic nitrogenous product, probably acetone, is developed in the blood, and this in its elimination gives rise to nephritis. Other theories as to the origin of the kidney lesion of puerperal eclampsia are not wanting, and Dr. Braxton Hicks has advanced the view that the convulsions themselves cause the albuminuria. Santos attributes it to the strain and consequent irritation of the uterine nerves during the enlargement of the uterus, and that this acts reflexly upon the sympathetic and renal nerves, producing the convulsions and the albuminuria. Winckel conjectures the existence of several poisons which develop and act with varying intensity. Pagot considers the fits reflex, the nervous discharge occurring from the cerebro-spinal centre close to the albuminuric centre. The Traube-Rosenstein view is that the convulsions depend upon cerebral anæmia due to oedema of the brain which is caused by the hypertrophied heart of pregnancy pumping watery blood under high pressure.

Enough has been said to prove that there is complete want of agreement among the highest authorities concerning the importance of, and the cause producing, the albuminuria of puerperal eclampsia, and Byers undoubtedly states it truly when he says "I do not think we are yet in a position to give a dogmatic answer to such a question."

There is far more unanimity of opinion concerning the second part of discussion, viz: "The relation between the albuminuria and the convulsions." The weight of opinion seems to be, that when albuminuria is present it is usually associated with a diminution of the amount of urine, or the solids of the urine, and that the convulsions are due to the retention in the blood of certain toxic substances; while in those cases in which albuminuria is absent, the convulsions are simply epileptic, or are due to reflex irritation from the uterus, acting upon an excitable nervous organization.

Those cases in which albuminuria only appears after the occurrence of one or more convulsions have been explained by the theory that the kidney lesion in such cases is a pre-albuminuric nephritis—in other words, that the portion of the kidney which has to do with the transudation of albumen becomes affected last, and to this fact the late appearance of albumen in the urine is due.

Dr. Auvard, of Paris, has made a special study of eclampsia, and has formulated what he terms the "pathogenic theory," which is that puerperal convulsions result from a poisoned condition of the blood, due to diminished elimination by the liver and kidneys. His own words are,—"to sum up: the pathogenic theory views eclampsia as the result of a 'strike' on the part of the organs of elimination, giving rise to intoxication of the organism."

The treatment of puerperal eclampsia is of far greater importance in the present state of our knowledge than speculations regarding the multitude of theories which have been brought forward to account for the disease. This, of course, is modified largely by the severity of the attack, and the time at which it occurs. It is now well known that the mortality is higher when the convulsions appear during pregnancy than when they begin during labor, and that the prognosis is more favorable still if the convulsions begin after labor. Those cases in which the convulsive seizures begin early in labor are more fatal than when they begin in the last stages of labor. Statistics also show that the convulsions cease in one-third of all cases when the uterus is emptied, so it is not surprising that the induction of premature labor occupies such a prominent place in the treatment of cases occurring during pregnancy, and that rapid delivery is of so much importance when convulsions appear early in labor.

Auvard, whose theory of the pathogenesis of puerperal eclampsia has already been stated, also sums up its treatment as follows: "The therapeutics of eclampsia comprises the three-fold indication to favor elimination by means of purgatives, diuretics, and diaphoretics;

and the three-fold indication of sedation by means of anaesthetics, venesection, and by emptying the uterus." Winckel, in his recently published text-book says: "Whenever the patient becomes restless, and the approach of an attack is thereby recognized, or as soon as the first contractions commence, chloroform is to be given, and the inhalation to be continued until the attack disappears. The chloroform acts, therefore, as a preliminary calmative until the chloral can be given (1 to 2 grammes—15-30 grs.), which is at once to be administered per enema, after each attack, and we are not afraid of giving as much as 12 grammes (=3 drachms) of the drug per day, and even more." Winckel's record is 92 cases with 7 deaths. Dr. Byers' treatment is chloroform and chloral, with rapid delivery if the case does not yield to these remedies. Another set of equally prominent clinicians rely upon venesection first, followed if necessary by chloroform anaesthesia and chloral, and thirdly delivery if indicated. Other remedies in common use are morphine, pilocarpine, nitroglycerine, amyl nitrite, veratrum veride hypodermically, the bromides, and brisk purgatives when the patient can swallow. Since every grade of severity of the convulsions occurs, it is impossible that any one treatment is applicable to all cases, and the time at which eclampsia appears, the condition and habit of the patient, the state of the urine, and the amount of albumin present should guide us in deciding the treatment of each case.

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#### A CORRECTION.

On page 643, first column, 25th line from the bottom, the word "contraction" should read "combination."

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#### CORRESPONDENCE.

#### PROMISCUOUS SPAYING OF WOMEN.

#### ED. MEDICAL AND SURGICAL REPORTER:

The operation of spaying or removing the ovaries of the female, has become such a

rage, with a certain class of ambitious young surgeons, each striving to count the greatest number of abdominal sections, that the woman who consults them for any gynaecological disease, is lucky if she escapes without being unsexed.

This subject has been forced to my notice, from the fact of several of my patients being induced to have the operation performed, without a due knowledge of its consequences, or the serious risk of life to which they were exposed. Of four cases that have recently come to my knowledge, in which the ovaries were removed, one died within twenty-four hours after the operation, the other three recovered from its immediate effects. One of the latter was a young married woman, married less than a year; she had consulted me for irritability of the bladder with a frequent desire to urinate. This I attributed to her changed condition of life and a somewhat nervous temperament. She was soon relieved by appropriate remedies and certain advice as to the marriage relation.

After a time the same state of affairs occurred again, when a lady friend advised her to visit a certain institution that shall be nameless. She was there informed that an operation would be required, to which she ultimately consented. (She positively asserts that she had not the slightest idea of the nature of the operation, or that her life was placed in the slightest danger.) Both ovaries were removed, and she recovered from the effects of the operation. In a few weeks after I was again sent for, and found her in great distress, her symptoms she declared were exactly the same, and she suffered even worse than before the operation, which was done ostensibly for her relief. And now she began to realize her deplorable condition, which to a young married woman, can be more easily imagined than described.

W<sup>M</sup>. C. TODD, M. D.,  
Roxborough, Pa.

#### THE APOTHECARY AND THE PRESCRIPTION.

TO THE EDITOR OF THE MEDICAL AND SURGICAL REPORTER:—There have recently appeared a number of articles in our medical journals on the subject of the physician's prescription and its final retention by the druggist. It may be interesting to your readers to know the views of a writer of the 16th century and probably the first mention of the apothecary's prescription file.

"In the reigns of Edward VI, Mary and Elizabeth no one ranked higher than Wil-

liam Bulleyn, as botanist and physician." Among some of his rules for "The apothecary" I find the following: "That he neither increase nor diminish the physician's bill (i. e. prescription) and kepe it for his own discharge." These quotations are from the interesting book entitled "A book about Doctors" by J. Cordy Jeaffreyson.

Very truly yours,  
G. GRANVILLE FAUGHT.  
October 24th, 1891.

#### BOOK REVIEWS.

ON PAINFUL MENSTRUATION—THE HARVEIN LECTURES, 1890. By Francis Henry Champneys, M. A., M. D. Oxon., F. R. C. P. Physician-Accoucheur and Lecturer on Obstetric Medicine at St. Bartholomew's Hospital, etc., London: H. K. Lewis, 1891, 8vo., 88 pp.

Dr. Champneys is a man of such broad culture, a physician of such extensive experience, and a writer of such conscientiousness, that anything coming from his pen is stamped with a guarantee of value. We, therefore, opened this book with the assurance that we would find its pages full of valuable thoughts, and we were not disappointed.

Dr. Champneys has endeavored to collect here the truth, as far as ascertainable, into an easily accessible form. In doing this he has performed his task so acceptably that he has placed in the hands of the physician some invaluable information on a subject which is not only one of difficulty but of frequent occurrence in the every day work of the general practitioner.

In the first lecture he treats of menstruation, the changes in the uterus, the changes during the monthly cycle, the question of uterine contraction, the condition of the pelvic organs during the cycle, dysmenorrhœa, and the classification of dysmenorrhœa. The second lecture is devoted to the study of membranous dysmenorrhœa—its history, pathology, clinical history, causation of pain, differential diagnosis and treatment. The third lecture is a discourse on spasmodic dysmenorrhœa—its natural history, pathology, treatment, etc.

The work throughout is excellently done; and the last lecture will be a revelation to those who look upon dysmenorrhœa, as being of mechanical origin.

In the treatment of spasmodic dysmenorrhœa he has found that cases treated unsuccessfully by most, if not quite all of the usual drugs got well suddenly as soon as castoreum was given. He uses it in the form of a tinc-

ture, from twenty to thirty drops being given three or four times a day during the pain, with or without a few drops of the tincture of *nux vomica*.

No gynaecologist or general practitioner should be without this work.

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## PERISCOPE.

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### THERAPEUTICS.

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#### ANTIPYRIN IN CHOREA.

Leroux (*Rev. Mens. des Mal. de l'Enf.*, August, 1891) concludes that antipyrin exercises a favorable action on Sydenham's chorea, quickly diminishing its intensity and shortening its duration. Of sixty cases treated, forty-one resulted favorably and nineteen unfavorably. Of the forty-one favorable cases, in nineteen the average duration of the disease was thirty-three days, and the treatment twenty-one days; in seven others the average duration was fifty-five days, and the treatment forty-three days; in seven the average duration was sixty-eight days and the treatment forty-nine days.

In nineteen cases the results were unfavorable for the following reasons:

1. The condition proved refractory to antipyrin.
2. The medicine could not be tolerated, vomiting, diarrhoea, etc., being caused by it.
3. Cutaneous eruptions were produced when intolerance existed.
4. Treatment was irregularly carried out or interrupted by an intercurrent affection.
5. In some cases the disease was prolonged in the form of convulsive tic, which was refractory to antipyrin, or post-choreic tic, which was usually cured in a few months.

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#### HYPODERMIC INJECTIONS OF ARISTOL IN PHTHISIS.

At a meeting of the Paris Académie de Médecine on September 15th (*Sem. Méd.*, September 16th, 1891), M. Hérard read a communication from Dr. Nadaud, of La Rocheoucauld, giving the results which he had obtained by the hypodermic use of aristol in phthisis. Having observed the good effects of that substance on tuberculous ulcers, and having satisfied himself as to its harmlessness when given internally, Dr.

Nadaud proceeded to use it hypodermically in the form of a solution of 1 cubic centimetre of aristol in 100 cubic centimetres of sterilized oil of sweet almonds. The first case in which he tried it was a child, aged 7, in whom hip-joint disease had left numerous discharging sinuses. One cubic centimetre of aristol was injected daily, and after twenty-five days there was no trace of suppuration. The injections were next tried in 23 cases of pulmonary phthisis, no other medication being employed. In 7 of these, after from twenty-five to thirty days of treatment, a complete cure seemed to be effected, and this was maintained up to the date of the report (from three to four months after the conclusion of this treatment). In 5 others, after rapid improvement, a relapse occurred within a month after the treatment had been brought to a close. After a second series of injections the symptoms again disappeared. In none of them was a third course of treatment required. In 3 cases in which large cavities existed in the lungs the effect of the injection was *nil*. Two patients died during treatment—one of diphtheria, the other of tuberculous peritonitis. The 6 who are still under treatment "for the most part show distinct improvement." Dr. Nadaud draws the following conclusions:—  
 (1) Aristol given hypodermically is perfectly innocuous; (2) It is in a large measure eliminated by the lungs; (3) It acts as an antiseptic and as a modifier of nutrition; (4) It acts very quickly, the effects beginning to show themselves on the sixth or seventh day by diminution of cough and suppression of night sweats; (5) After from twenty to twenty-five days of treatment it is generally found that the patient had gained weight; (6) The injections are useful in the first and second stages of pulmonary tuberculosis; when cavities exist and the expectoration is purulent they have no effect, or a very slight one; (7) The injections cause no inflammation of the skin at the seat of puncture, nor are they followed by abscess, eschar, or induration; the pain is trifling. In commenting on Dr. Nadaud's paper, M. Hérard said that *a priori* the treatment was rational, inasmuch as aristol was composed of powerfully antiseptic substances. Dr. Nadaud's facts, however, in his opinion, were insufficient to form the basis of any practical conclusion. The cases must be numerous, and must be kept under observation for years before the therapeutic effects of aristol could be compared with those of creasote and guaiacol, which seemed to be really valuable agents.—*Brit. Med. Jour.*

## HYDROCHLORIC ACID IN DIPHTHERIA.

Starting from the fact established by Roux and Yersin (*Bulletin Médical*, 1889), that the virulence of diphtherial toxines can be considerably diminished by slight acidulation of the bacterial products—especially with some mineral acid—Dr. S. H. Kraszewski, of Ivyé, resolved (*Gazeta Lekarska*, No. 28, 1891, p. 555) to try hydrochloric acid in six typical cases of croup in children, aged from six months to three years, and in five cases of faucial diphtheria in two children and three adults. The following formula was used: B. Liq. ferri perchloridi, *Ph. Ross.* (that is, equal parts of the iron salt and distilled water), 4 grammes; acidi hydrochlorici, 1.0 gm., aq. destillat., 200.0 gm. M. D.S.: A teaspoonful every fifteen minutes for one hour; then every thirty minutes for three or four hours; later on every hour. In faucial diphtheria the remedy was applied locally as follows: B. Liq. ferri perchloridi, *Ph. Ross.*, 8.0 gm.; acidi hydrochlorici, 1.0 gm.; aq. destill., 30.0 gm. M. D.S.: To be painted over the affected area with cotton-wool every two hours, a fresh piece being used on each occasion. The treatment lasted from two to five days, the only adjuvants employed being frequent gargling with a four per cent. solution of boracic acid in faucial diphtheria, and the internal administration of a 1.5 per cent. solution of sulphate of copper, in croup (as an emetic when symptoms of laryngeal obstruction were present.) Every one of the patients made an excellent recovery. In four out of five faucial cases the diphtheritic deposits vanished completely and permanently in from twenty-four to forty-eight hours, the throat becoming normal within three or four days. The fifth patient recovered in a week. The laryngeal cases (of which two had been apparently hopeless) were cured in from three to five days. In none were any unpleasant accessory effects observed.—*Medical Record.*

## BICHLORIDE OF GOLD TREATMENT FOR INEBRIETY.

The so-called bichloride of gold treatment for inebriety, for which so much has been claimed, and to which the newspaper press has given such prominence, proves to be a rank humbug. Bichloride of gold, though a chemical possibility, is impossible therapeutically, as the preparation reduces and becomes inert the moment the chemical bichloride transformation is effected.

It is stated that the remedies employed by

the manager of the institution, which has been chiefly identified with this treatment at Dwight, Illinois, are the hypodermic use of cocaine and administration by mouth of the so-called bichloride of gold, which a recent analysis reveals to be a weak solution of aloin in water combined with comp. tr. cinchona. The only gold used in the treatment is that supplied by the dupes in the form of fees.

The favorable effects of this treatment are in part due to the action of cocaine, but chiefly to the mental effect on the patients who, emotionally stimulated by faith in the promised cure, are enabled to gain temporary control of their habit. The lay and religious press have given the chief quack and his humbug an amount of free advertising beyond computation.

The Secretary of the State Board of Health of Illinois is authority for the statement that the manager of this institution at Dwight was refused a license to practice medicine in Illinois.—*Med. Age.*

## THE TREATMENT OF SMALL CYSTIC TUMORS BY MEANS OF INJECTIONS OF CHLORIDE OF ZINC.

This method which was recommended some time ago by Landerer has been used with success by Schilling. A one-tenth per cent. solution was employed, of which 0.2 to 1.5 c. cm. were injected into the cyst. In cases of extensive tumors of the sheaths of the tendons, as for example on the back of the hand, several injections were made at the most prominent places. The procedure is almost painless. The cysts after injection become at first hard and then softer; they disappear almost completely in four or five weeks. Sometimes the injection must be repeated. The operation is sometimes followed by oedema and slight hyperæmia of the surrounding skin, which are best treated by wet compresses. The author has treated in this manner three cases of simple ganglion at the back of the hand, one hygroma over the patella, and one hydrocele in a man fifty-six years old.—*Wiener Medizin Presse*, No. 32, 1891.

## HYPODERMIC INJECTIONS OF CARBOLIC ACID IN TETANUS.

MM. Fancel and Frache report (*Arch. de Méd. et de Pharm. Milit.*, September, 1891) a case of traumatic tetanus in which a cure was effected by means of hypodermic injections of carbolic acid. The patient was a

man, aged 32, who had received a superficial wound of the left forearm from the bursting of a gun. The man, who was a bricklayer, continued to work at his trade without having had the wound dressed, and on the third day he was suddenly seized with rigidity of the limb, which was quickly followed by lock-jaw, opisthotonus, and other symptoms of tetanus. On examination of the wound it presented a healthy appearance, but some fragments of lead were found in it and removed. Treatment by chloral, bromide of potassium, subcutaneous injections of hydrochlorate of quinine, etc., having proved futile, injections of carbolic acid were tried, 1 centigramme being given every two hours, and all other medication being discontinued. The effect was almost immediate, the spasms becoming much less violent and less painful, and the patient's general condition showing marked improvement. The injections were continued for seventeen days, and the patient was finally discharged completely cured, fifty days after his admission to the Hospital. The authors refer to the introduction of this mode of treating tetanus by Baccelli, who reported a case in which he had employed it successfully to the first Italian Congress of Medicine in 1888. They do not, however, agree with him in attributing the efficacy of the treatment to the sedative action of the carbolic acid on the spinal centres, but regard it as due to the parasiticide power of the remedy.—*Brit. Med. Jour.*

#### MEDICINE.

#### DIGESTION ACTIVITY IN MENTAL DISEASES.

An article on this subject appeared (*St. Petersburg Med. Woch.*) by Dr. E. Grabe, in which he attempts to elucidate the question of nervous dyspepsia as he considers it the most important, because the most frequent, of the neurasthenic indigestions due to functional disease of the nervous system.

In examinations of the stomach contents in a number of psychoses, over a given time, it was found that the mental condition had much influence on the general economy. Leyden's conclusions on this subject after making observations during health and disease, were that the functions of the stomach and appetite and digestion were under the influence of the central nervous system and that stimulation or depression resulted in alteration of function. It must then be

accepted, that in a high grade of psychical disease, the stomach functions cannot be normal and that the resulting dyspepsia is therefore a neurosis. Notwithstanding some new views to the contrary, recent examination of the stomach juices in fourteen cases of melancholia, the patients being otherwise in general good health, showed hyperacidity, due to free hydrochloric acid and decrease of peptic formations. Hypersecretion was not, however, constant. Under such circumstances it is not surprising that appetite is lost in melancholia and allied diseases. Kraft-Ebing, in his text-book on Psychiatry, says that the explanation of the loss of appetite in dyspepsia, melancholia and hypochondria is due to the lessening in the quantity of, or chemical alteration in, the digestive fluids. In the twelve cases of mental disease, examined by the author as to the condition of the stomach secretions, all were found to contain free hydrochloric acid and lessened peptonoid products.

The irritated state of the nervous apparatus in the various forms of mental diseases seems then to be responsible for the secretion activity of the stomach resulting in the production of hydrochloric acid. It is the author's intention to make further investigation as to the constancy of the functional alterations in psychoses.

#### INFECTIOUS ORIGIN OF RICKETS.

Dr. Stephano Mercoli alleges as the result of certain bacteriological researches, that pyogenic microbes are present in the nerve tissues of persons suffering from sciatica, chorea, and hydrocephalus, and the most common of those found are the staphylococcus and streptococcus. He has also been examining most minutely children who have died from hydrocephalus and rickets, and from the bony tissue of the latter, ribs, forearms, and so forth, he has been able to obtain, so he affirms, pure cultures of pyogenic microbes. According to this authority rickets is a parasitic disease; he believes that in adults the microbial activity is not enough to cause more than a local manifestation of the disease, whereas in children the infection becomes general, but it is chiefly in the nervous and osseous tissues in which its effects are most manifest. It would be convenient if we were made a little more acquainted with the details of these bacteriological investigations before being asked to accept the results to which they are presumed to point.

## ACUTE YELLOW ATROPHY OF THE LIVER.

Burckhardt (*Corresp.-bl. für. Schweizer Aerzte*, August 15, 1891) reports the case of a widow, thirty-two years old, who, after profound emotional depression, developed jaundice, followed in turn by delirium, with but slight elevation of temperature, death taking place in coma. The autopsy confirmed the diagnosis of acute yellow atrophy of the liver. Burckhardt takes occasion to controvert the view that acute yellow atrophy is always the result of phosphorus-poisoning. In the former, the primary enlargement of the liver and the colicky pains of the latter are wanting, while the maniacal manifestations of acute atrophy are absent in phosphorus-poisoning. Examination has thus far failed to find phosphorus in the organism in acute yellow atrophy. From the absence of fever in, and the sporadic appearance of, acute atrophy, Burckhardt is unwilling to place it in the category of infectious diseases. He would rather ascribe the symptoms to the absorption of abnormal products developed in the course of parenchymatous inflammation of the liver induced by an unrecognized noxa.

## PERIPHERAL NEURITIS IN DIABETES.

In a communication by Auché, of which a summary is given in the *Neurologische Centralblatt*, the author refers to the fact that although there is strong clinical evidence of the existence of peripheral neuritis among diabetics, no absolute proof that the condition giving rise to symptoms of neuritis is really one of inflammation of the peripheral nerves has as yet been brought forward. This, however, is the view which the writer adopts, and which he proceeds to prove by means of his own observations and those of others, embracing almost every form of disturbance of the nervous system occurring in diabetics. He also cites his histological observations, showing widespread inflammatory processes in the peripheral nerves. In the summary of his views of the subject the author states that the upper extremities are attacked with less frequency than the lower, that the affection is mostly bilateral, but may be one-sided, that the functions of the bladder and rectum are unimpaired, and that atrophy and the reaction of degeneration are present in the affected muscles. Sensory disturbances, consisting of pains, hyperesthesia, paraesthesia, or anesthesia, frequently precede motor troubles, but may accompany them, or may occur alone. Vaso-motor troubles, such as

hyperidrosis, oedema, shiny skin, and ecchymosis, may also be present as well as trophic disturbances, such as perforating abscesses, local atrophy of skin, falling off of nails, &c. The loss of knee-jerk which occurs in some cases of diabetes is to be ascribed to neuritis. The author in conclusion refers to the generally accepted opinion that the nervous symptoms are not at all proportional to the quantity of sugar in the urine. Some researches which he made as to the effect of injections of saccharine solution in the vicinity of the sciatic nerve led him to conclude that sugar was not the active agent in setting up changes in nerves; but that such changes are more probably to be ascribed to the presence in the blood of acetone or of some as yet undescribed chemical substance.—*Lancet*.

## MORPHOLOGICAL CHANGES IN THE BLOOD CAUSED BY INJECTIONS OF TUBERCULIN.

Recent investigations, carried on by Dr. N. W. Uskoff, have shown that the injection of Koch's fluid causes a temporary increase in the number of leucocytes, such increase affecting mainly the proportion of multinucleated cells. Dr. N. Tschistowitzsch (*Berlin klin. Wochensch.*, August 24th, 1891) publishes five further cases in which the leucocytes were counted while under treatment by Koch's injections. Considerable variation was noted in the five cases. On the whole, however, he, like Uskoff, found that an increase in the number of white corpuscles occurred, this leucocytosis consisting mainly in a multiplication of the multinucleated elements and often, also of the uninucleated elements with lobulated nucleus. An increase in the other forms of leucocytes also occurred in severe cases, but was less constant. This form of leucocytosis, induced by the injection of Koch's fluid, sets in very rapidly, before any other signs of reaction have appeared. It disappears again equally quickly, to be followed by a diminution in the number of white corpuscles. In harmony with this observation of the power that Koch's fluid has to cause a multiplication of leucocytes, and especially to promote the development of immature into mature forms, is the fact that the presence of tubercle bacilli in a tissue (whether these have entered spontaneously or been artificially inoculated) provokes a rapid aggregation of leucocytes in such tissue.—*Brit. Med. Jour.*

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## ACTION OF PRODUCTS OF BACILLUS PYOCYANEUS.

MM. Morat and M. Doyon (*Lyon Medical*, May 31st, 1891, p. 143), using the filtered products of the bacillus pyocyanus, found that after the injection of from 10 to 20 cubic centimetres into the veins of a rabbit the pneumogastric soon lost its inhibitory action on the heart; the vasodilators of the sympathetic trunk were paralyzed, whilst the vaso-constrictors remained unaffected, even under considerable irritation; the iridodilator nerves of the sympathetic, however, still remained active; but the chorda tympani lost its vaso-dilating power. These results they found, however, could not be obtained in the case of the dog; nor were they able to obtain any evidence of any action of this poison on the sympathetic trunks in the cat.

—*Brit. Med. Jour.*

## MORVAN'S DISEASE.

Church (*Journal of the Amer. Med. Association*, 1891, No. 10) reports a case of so-called Morvan's disease, with a brief review of what is known on the subject, the literature of which is scanty. The affection is characterized by a destructive process, progressively and symmetrically involving the digits, ulceration with exfoliation of the bone taking place, and resulting in deformity, sometimes preceded by pain and attended with anesthesia. In the only case of the disease in which an autopsy has been reported, an excess of connective tissue was found in the posterior horns, posterior columns, and gray matter of the cervical cord and in the peripheral nerves. Nothing is known as to its etiology. The disease is to be distinguished from scleroderma, anesthetic lepra, symmetrical gangrene, and syringomyelia. The treatment is symptomatic.

## THE RETURN OF THE KNEE-JERK IN A TABETIC.

Dr. J. Hughlings Jackson, in the *British Medical Journal* for July 11th, reports a very interesting case of return of the knee-jerk, after hemiplegia, in an old case of tabes. The patient, a man of forty-nine years of age, had contracted syphilis some twenty-three years previous to the report of the case. At the time that he came under observation, in February, 1888, the symptoms of tabes were typical. There were also some evidence of hemiplegia, the patient having suffered from two attacks a short time before his admission

to the author's service. About forty-seven days after the second attack of hemiplegia the return of the right knee-jerk was noticed, and subsequently the left was obtainable by re-enforcement. It was presumed that the return of the patellar reflex was contemporaneous with the establishment of sclerosis of fibers of the pyramidal tract in the bundle of deep fibers of the lateral column. It is well known that in many cases of uncomplicated hemiplegia there is exaggeration of both knee-jerks. It has been shown by various authors that at least in some cases of lesion of one internal capsule there has followed degeneration of fibers in both lateral columns.

## SURGERY.

## EXTRIPATION OF THE LARYNX.

Tauber (*Archiv. f. klin. Chir.*, Bd. xli., Heft. 3) has tabulated 163 cases of extirpation of the larynx, and has analyzed his tables with typical German minuteness. As a general result he finds that the operation is followed by death in 69.9 per cent of all cases. Permanent cure—that is, failure of the disease to return for three years after operation—is noted in 7.9 per cent., of the cured cases. It is a well-known fact that in Spencer Wells' hands ovariotomy gave a mortality of 70 per cent., and that by improvement in technique this mortality has fallen to less than 4 per cent. There is little hope held out by Tauber that a similar improvement in the results of laryngectomy may be expected, since the percentage of death is the same now as it was ten years ago.

It would seem from this study that laryngectomy is an operation which should not be performed, since even when from mechanical interference a tumor of the larynx threatens to produce a fatal result, tracheotomy, will afford immediate relief, and there is about as much assurance against recidivitv as is afforded by complete extirpation of the larynx, at least in such cases as are far advanced.

Bardenheuer (*Ibid.*) takes quite an opposite view of this operation. He believes that he has so improved the technique that the mortality will be greatly lowered, and instances, in proof of this fact, that while his first four patients died immediately following the operation, the last four, treated by a different method, all recovered. He found that the patients died not immediately after the removal of the tumor, but in from four

to eight days, and that the mortality was due to septic inflammation, usually beginning in the deepest portion of the wound, in the space between the trachea and the surrounding muscular tissues. From this position inflammation extended along the loose cellular tissue of the neck into the mediastinum, and death usually resulted from septicæmia and pneumonia. The cause of infection was usually penetration of the liquid food and of the secretions of the mouth into the deeper portions of the wound. Bardenheuer modified his laryngectomies by attempting to sterilize the mouth for several days before operation.

The teeth were subjected to repeated frictions with antiseptic solutions, and the mucous membrane was dried with salicylic cotton. His next modification consisted in so placing the patient after operation that secretions of the mouth could not drain into the wound. The mattress was so arranged that the head was extended backward, and the pharynx was on a lower level than the cavity made by extirpating the diseased trachea; hence fluids gravitated to the mouth, and not away from it. His final modification consisted in carefully respecting the anterior wall of the oesophagus and the mucous membrane of the trachea immediately below the epiglottis, so far as it was healthy. After removal of all the diseased portions, the anterior wall of the oesophagus was brought forward and stitched to the mucous membrane of the trachea, thus forming a septum between the mouth and the wound cavity. Further, the free edge of the epiglottis was freshened and stitched back to the anterior wall of the oesophagus. The cavity of the wound was then firmly packed with sterilized gauze, and the dressing was changed in from two to eight days, depending upon the length of time the stitches held. Frequently the patient was able to swallow, thus relieving the operator of the necessity of passing an oesophageal tube. The sutures shutting the mouth from the wound cavity need not be left longer than fourteen days, since this is a sufficient time to allow of protective granulations being formed.—*Amer. Jour. Med. Sci.*

#### CASES OF BRAIN SURGERY.

Dr. Minossi reports (*Gazzetta degli Ospitali*, March 15, 1891) two cases of brain surgery, in which Professor P. Postempski, of Rome, was the operator. One was a case of cerebral tumor in a woman, aged 58. She had suffered from pain in the right arm for

some ten years, which had gradually increased in frequency and severity, till it became continuous; the movements of the limb had also become somewhat difficult. On November 21, 1890, she was seized with clonic convulsions in the limb, with clonic contraction of the eye-lids, and of all the muscles supplied by the right facial nerve. She did not lose consciousness. Other attacks of a similar kind followed at varying intervals, and aphasia, with transient verbal amnesia and paresis of the right facial and hypoglossal nerves, came on. The right arm, when left to itself, lay semiflexed, the thumb being in the same plane as the fingers, which were also semiflexed. Sensibility in the limb was unimpaired. Professor Ezio Sciamanna, under whose care she was, sent her to Professor Postempski, with the diagnosis of tumor in the left motor area. On February 23, Postempski removed a subcortical tumor (probably a glioma) of the size of a large chestnut, which occupied the region of the left ascending parietal convolution in its middle part. The operation was immediately followed by right hemiplegia, due to plugging of the wound, and the next day the urine was found to contain a moderate amount of sugar, with traces of albumen. The wound healed by first intention, and the symptoms rapidly disappeared. The patient was shown at a meeting of the Royal Medical Academy at Rome, on May 24th (*Riforma Medica*, June 4, 1891), when the mental condition was absolutely normal, and there was no disorder of speech; she felt well, and was cheerful; there was no impairment of mobility, either in the right arm or in the regions of distribution of the facial and hypoglossal nerves. The right hand could be closed, but the fingers could not be fully extended. There was a certain amount of thinning of the skin on the dorsal surface of the ends of the fingers, and some thickening on the palmar, especially in the thumb. In the other case the patient was a man, aged 37, who had been struck with a hammer on the left side of the head. There was a compound stellate fracture of the skull over the region of the Rolandic fissure. When seen soon after the injury the patient was aphasic, and there was complete hemiplegia and hemianæsthesia of the right side. The head was shaved and disinfected, the wound enlarged, the depressed bone removed over an area of 3 square centimetres, and a light dressing applied. Three hours afterwards the hemiplegia had almost disappeared, but there were zones of anaesthesia on the outer

aspects of the thigh and arm. Six days later these also disappeared, and nineteen days after the injury the patient had completely recovered.—*Brit. Med. Jour.*

#### NOTES ON PYOKTANIN.

Pyoktanin, the trade-marked name of certain aniline colors (methyl-violet or "blue pyoktanin," and aurin [?] or "yellow pyoktanin"), has so far found many supporters, but also many opponents. Its supporters use it because it has been found to be, under certain circumstances, the most efficient antiseptic and bactericide at our disposal. And its opponents base their chief objection upon its disagreeable and extraordinary tintorial powers. Moreover, some who used it without prejudice have reported it to have failed in their hands.

Regarding the latter it may be said that there may have been various causes for the failure, not due to the agent itself. One of these may have been the age of the solution. It has been found that the bactericidal power of the solutions of these aniline colors is rapidly lost by keeping. Solutions of pyoktanin should be freshly made when wanted for use, or, if to be kept for some days, should be preserved in bottles made of non-actinic glass.

Concerning the bactericidal power of pyoktanin, the experiments of Jaenicke may be quoted. The latter found that the development (but not the life) of the following bacteria was arrested by solutions of the dilution quoted in each case:

#### Strength of Solution.

Bacillus of Cholera.....	1:62,500
Coccus of Pneumonia.....	1:1,000,000

To destroy their life or vitality, solutions of a higher strength were required, varying from 1 in 1,000 to 1 in 5,000 for the same period of time (one-half minute). In some cases more dilute solutions will accomplish the same purpose, but they require more time.

Pohl, who has recently published a dissertation on this subject, points out that the objection against pyoktanin, based upon its tintorial power, is perhaps due to the use of this agent in cases where it is not at all wanted. It is not claimed that it has advantages over corrosive sublimate and similar antiseptics, when the object is to prevent a wound from becoming septic. Our present methods—application of dressings, bandages, sprays, etc., containing sublimate, etc., or sterilized by heat—are ample for this pur-

pose. But pyoktanin comes especially into use and fills a real gap when the object is to *disinfect a wound which has become infected or septic*, for which purpose we had heretofore no efficacious agent.—*Amer. Druggist.*

#### BASSINI'S RADICAL CURE OF HERNIA.

At the recent Congress of German Surgeons, Dr. Escher, of Trieste, reported his results from this method of operation. It consists in laying open the inguinal canal over its entire extent and somewhat beyond; the spermatic cord and hernial sac is then lifted up, and the latter incised up to its neck, and then ligated, excised and the remaining portion replaced. The layers of the internal oblique and transversalis muscles are then carefully isolated, as well as the internal portion of Poupart's ligament, and the edges of these structures are accurately united by suture. The spermatic cord is sutured in this gutter, and the fascia, muscles and skin united. The author has employed this method in the treatment of 53 herniae. The results were as follows: Of the 35 cases of reducible herniae 25 per cent. healed by first intention, 10 with suppuration; of the 9 cases of incarcerated hernia 5 healed by first intention, 3 with suppuration, and 1 terminated fatally; of the 9 cases of irreducible hernia 4 healed by primary union, 4 by suppuration and one died. As regards the permanence of the cure, in 24 cases which can be utilized for this purpose, there have been no recurrences during a period of observation varying from three months to two years.—*Deutsche Medicinische Wochenschr.*

#### NEPHRECTOMY FOR CARCINOMA.

Krönlein (*Corresp. bl. für Schweizer Ärzte*, August 15, 1891) presented to the Society of Physicians of Zurich, a kidney obtained from a woman, forty-four years old, who for a considerable time had presented symptoms of floating kidney. Subsequently hematuria manifested itself, and a large tumor was detected in the right side of the abdomen. Operation having been decided upon, a lumbar incision was made and the kidney separated from the peritoneum without injury to the latter. In isolating the pedicle the renal vein was torn. The vessel was speedily caught and ligated. Drainage provided for, the wound was sutured. The case pursued an even and afebrile course. There were no uræmic symptoms. The tumor had not invaded the con-

nective-tissue capsule of the kidney, so that the prognosis was favorable. Five weeks after the operation, the patient was dismissed, cured. Microscopical sections showed the tumor to be a papillary carcinoma. Krönlein stated that he removed the kidney in three cases for carcinoma.

### GYNÆCOLOGY.

#### OFFENSIVE LEUCORRHOEA ASSOCIATED WITH ACUTE ANTEFLEXION.

Dr. Graily Hewitt reports the following case (*Brit. Med. Jour.*) which is of great interest both from a theoretical and from a practical point of view. A. B., single, aged 27, was brought to me for consultation on Oct. 8th, 1890. She is a servant, and has worked extremely hard. She is very conscientious, and during the last year she has frequently sat up at night to do extra work; namely, washing. During the last two years her health has been failing. The symptom which is the most distressing is the presence of a terribly offensive odor and discharge from the vagina. This has existed for nearly two years, being always very much worse during the week following menstruation. She is now obliged to have repeated change of linen, and the greatest difficulty is experienced in getting rid of the offensive smell from the rooms used by the patient. She looks ill and pale, there is pain at the epigastrium, also pain in the pelvic region, and she can only sit on the edge of a chair. On examination it is found that the uterus is large and broad, and anteflexed. The body of the uterus forms a retort-shaped mass, which lies low down behind and below the symphysis pubis. By means of the sound the uterus can be straightened, but doing this occasions much pain. The size of the uterus is that of a small orange.

The diagnosis formulated was: retention of menstrual débris with decomposition of same due to a pouched anteflexed uterus.

Treatment: Insertion of a cradle pessary and plenteous carbolic injections of hot water. Diet: Milk in large quantity.

October 15th. Much better as regards pain and offensive leucorrhœa. October 31st. Very much better. Wearing cradle, which controls the position of the uterus satisfactorily. The last period more as it should be. Has now begun to do a little. April, 1891. The offensive discharge has now ceased, the position of the uterus good. Local treatment continued. Takes food well,

and in all other respects material improvement.

Whatever view may be taken of the above case it is the fact that the reposition of the uterus at once produced an alteration in the vaginal discharge. The patient had previously been treated by injections, etc., unavailingly. By elevation of the body of the uterus the contents of the organ (retained menstrual products) more easily escaped, and their decomposition was prevented. The intensity of the anteflexion in this case was very noticeable, and Dr. Hewitt says he has never seen such acute anteflexion except in cases where very unusual exertion, or a violent shock from an accident has been experienced. It is his belief that retention of menstrual products in cases of acute anteflexion is common. The rarity of the case above related is the long continued putrescent character of the discharge.

The explanation of the putrescence is probably the detention of menstrual shreds in the cervical canal in contact with air passing into the vagina, or even possibly passing into the uterus. As regards the presence of air in the vagina, some years ago he saw a case in which, whenever the patient sat down to table, flatus was expelled from the vagina in a most annoying manner. It was found that the uterus was large and heavy, and markedly anteflexed. The vagina was distended like a ball. The opinion formed was that the air entered the vagina consequent upon exaggeration of the displacement, and a sort of suction action was set up thereby. At all events the reduction of the anteflexion put an end to this disagreeable symptom. There was no such escape of flatus in the case above related, but the putrescence implies rather free admission of air into the vagina, which admission was probably favored by the anteflexion.

### OBSTETRICS.

#### PUERPERAL MANIA.

In a recent essay, Olshausen, of Berlin, quotes the following language, used by Donkin, in 1863, with the comment that to-day it is approximately true. "There is certainly no subject connected with obstetrical science in a more crude and unsatisfactory condition than the pathology of puerperal mania." The aetiology especially needs illumination. It cannot be denied, with our present knowledge, that bodily causes connected with the parturient pro-

cess associated with those acting on the mind, especially when an hereditary predisposition is present are adequate to the production of a puerperal psychosis. But there is not a shadow of doubt in our mind from careful study of a number of cases that Olshausen is entirely correct when he asserts that there are numerous cases in which the puerperal psychosis is connected very closely with severe infectious disease of the puerperal woman and can only be explained by this association. Not long since Hansen in an admirable paper published in the *Zeitschrift für Geburtshilfe u. Gyn.* insisted upon this connection and illustrated his views by appropriate examples. It is to be regretted that so few writers of text books on Obstetrics have given sufficient prominence to this relation. Clinical investigators have now the important problem to solve, as to what forms of infectious diseases are likely to give rise to psychoses, and further as to the anatomical basis of the psychoses. Olshausen is of the view from his experience, that cases of puerperal pyæmia as likewise cases of endocarditis ulcerosa are readily associated with acute psychoses. It is rarer, on the contrary, to find cases of pure septæmia so associated. When the pyæmic form of puerperal fever leads to the psychoses it is very probable that meningitic and encephalitic processes have taken place, especially capillary emboli, which are the anatomical cause of the psychosis and in the autopsy have been overlooked. In life the phenomena observed are often only those pertaining to a pure psychosis with a considerable degree of fever.

When there is no peritonitis the diagnosis of an infection may escape the physician, the more readily, as regular measurements of the temperature may not be possible on account of the restlessness or wild delirium of the patient and no demonstrable localizations may be found in the joints or other organs. Besides the psychoses due to infection and the puerperal mental diseases originating from pure physical causes, there is a third group, the psychoses after eclampsia. This class of cases has heretofore not received the attention its importance deserves. With regard to the time of appearance, the form and the course of the psychoses after eclampsia Olshausen instructs us as follows. Almost always the disease begins in the first days of the puerperal period, consequently only seldom as early as in other psychoses.

The third day of the puerperium is the one by preference for the outbreak. More

rarely it is the second or fourth. In the majority of cases an interval of a day elapsed after the recovery of the patient from the eclamptic coma and the return of consciousness, before the phenomena of the psychosis developed. In one or two cases, however, hallucinations followed immediately the awakening from coma, so that a condition of lucidity of consciousness could not be predicted. The psychoses appeared in every case with hallucinations. In the majority of cases the illusions related to the sense of hearing, in others to that of sight. Not infrequently the patients believed themselves to be objects of pursuit. Great restlessness is a frequent symptom, the patients wish to get out of bed, yet, as a rule, they can be easily restrained, occasionally the psychosis bears the character of melancholia.

Furious delirium is rare—suicidal attempt is very uncommon. The disease runs a speedy course and for this reason cases rarely come under the care of Alienists in Insane Asylums. With regard to symptomatology it should be noticed that in a number of cases the temperature and pulse attained to an unusual height during birth with no sort of local disease. Without doubt in these cases of psychosis after eclampsia the morbid condition is one of empoisonment in close connection with uræmic change of the blood conformably to the psychosis observed occasionally in chronic disease of the kidneys.

Olshausen recommends accordingly the following classification, with reference to puerperal psychosis.

1. Psychoses that are directly dependent upon febrile infectious puerperal disease, infection-psychoses.
2. Idiopathic psychoses (without corporal, febrile disease.) Here belongs the great majority of the psychoses of pregnancy and lactation and a portion of the psychoses of the puerperal period.
3. Intoxication-psychoses after eclampsia, or exceptionally in uræmia without eclampsia.—*Gaillard's Med. Jour.*

## PEDIATRICS.

### PSYCHOSES IN CHILDHOOD.

Dr. E. Doernberger reports a case (*Münch. Med. Wochenschr.*, July 7th, 1891) of insanity, complicated with chronic morphinism, occurring in a child. The patient was healthy until 2 years of age, when she was violently thrown down in a wagon by the horses bolting. Greatly terrified at the time, she fell into a delirious and feverish

state, lasting about ten days. Several months later paroxysms of screaming and outbursts of maniacal laughter and incoherent singing occurred. Some years later she suffered acute headache for several weeks. In the course of a year or two, nocturnal terrors, with visual hallucinations of thieves and fire, developed, and her disposition became intensely excitable and violent. To quiet her the parents commenced to inject her at night with 0.016 g. of morphine; they gradually increased the amount to 0.008 g. six or seven times daily without noteworthy improvement. Severe cephalalgia and palpitation ensued, together with frequent emesis, thirst, epistaxis, and deranged intestinal action. When placed under Dr. Doernberger's care the patient's age was 11 years; she was emaciated, weak, and languid, excitable, nervous, and vicious; her memory and power of learning were impaired; the pupils were contracted and sluggish. The morphine injections were immediately discontinued; decreasing doses of the alkaloid in potassium bromide solution were substituted, in addition to special hygienic measures. Phenomena of abstinence at once appeared; excitement increased; auditory and visual hallucinations were vivid; the patient craved for an injection. At the end of three months of this treatment the symptoms of morphinism subsided, leaving the original mental anomalies practically unchanged. Within a few months the patient relapsed into morphinomania, her mother having recommenced the injections to assuage the head pain. Notwithstanding that the patient's father was of deficient intellect, her mother extremely nervous and addicted to the morphine habit, and that other neuroses abounded in the nearest relatives, Dr. Doernberger considers that the heredity in this case is not sufficiently established; he would rather attribute the insanity to cerebral abscess or meningitis produced by the accident.—*Brit. Med. Jour.*

#### PERITYPHLITIS IN CHILDREN.

Beynes (*Gaz. Méd.*, May 23, 1891) writes that the cæcum is fixed at the lower border of the large intestine, and is connected with the appendix by its mesentery. In children faecal matter readily penetrates it, and the anatomical condition may be said to predispose to appendicitis and to perityphlitis, with perforation. In almost all cases of perityphlitis in children it is the appendix which is perforated. The general causes which give rise to the condition are the same

in children as in adults. But additional and not infrequent causes are tuberculosis of the mesenteric glands, abscesses following congestion and perinephritic abscess, with or without pyelonephritis. Among the local causes may be mentioned stagnation of undigested material, calculi of stercoaceous matter, biliary calculi, foreign bodies, gangrenous perforating appendicitis, and typhoid ulcerations of the closed follicles of the large intestine. The lesions of perityphlitis in children are those of pericecal peritonitis, which may be sero-fibrinous with adhesions, and curable, but liable to be followed by recurrence; or it may be suppurative and with a tendency to result in general peritonitis. Perityphlitis may result without perforation of the appendix.

The symptoms at the beginning are vague; there may be a coated tongue, pain in the abdomen, vomiting, and fever. Suppuration, as was shown by Grisolle, does not usually take place before the tenth or fifteenth day. The principal indications of such an occurrence are an exaggeration of the local and general symptoms and a tumor in the iliac fossa, which may show fluctuation. Percussion may give a note indicating the presence of fluid and gas. The abscess may open externally or into the cæcum, these two terminations including almost all cases. But the opening may take place in the peritoneal cavity, in the rectum, in the internal iliac artery, or the termination may be chronic peritonitis or pyæmia.

The most favorable termination is that in which the opening is exterior. The prognosis of this disease is more grave in children than in adults. In forty-six cases the mortality was thirty-nine, while in adults the mortality is about thirty per cent. General peritonitis frequently results, and if the patient recovers there frequently remains a deposit in the iliac fossa which predisposes to recurrences. If abdominal section is to be performed it should be done early in the disease.

#### HYGIENE.

#### THE USE OF THE FLESH OF POISONED ANIMALS.

This subject has been studied by Schmidt-Mulheim with a view to determine whether if eaten by men such flesh would be injurious. As reported in the *Revista Internationale d'Igiene* of Naples, for June, 1891, it may be used without any danger whatever. Many

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savage races constantly use the flesh of the animals that have been killed with poisoned weapons and have never been injured by that means.

Harms has proved that the flesh of animals that have been poisoned with *nux vomica* and with tartarized antimony is not at all hurtful; Feser has demonstrated the same fact in regard to strychnine and eserine; Spallanzani, Zappi and Sonnenschein have done the same for arsenic.

Froehner and Knudson have made some experiments for this purpose with strychnine and with eserine. They fed dogs with large quantities of mutton poisoned with strychnine and eserine, and they found that no injury whatever was done to the animals. Besides, they themselves ate some of the poisoned meat and drank soup, made from it, and found that the flavor was good and had no injurious effects whatever on the system.

In regard to the alleged injurious effects caused by the meat of animals poisoned with hellebore, and which had eaten belladonna leaves, the authors have shown that the accounts published in this regard have not been proved and require further tests.

The *Revista* says that in the interest of meat inspection, it is desirable that experiments should be made with other poisons.—*Univ. Med. Mag.*

#### THE INFLUENCE OF REST ON THE SENSIBILITY OF THE RETINA TO LIGHT AND COLOR.

Basevi (*Ann. di ottalm.*, vol. xviii, 6, p. 475) has made careful investigations upon himself and others as to the adaptability of the retina for white and colored light. His results are very similar to those of Aubert, Peschel, and Treitel. The eyes of the person upon whom the experiments were about to be performed were rested in a partially darkened room for about fifteen or twenty minutes. The room was darkened with heavy curtains. The author found that after this period of rest the visual acuity had been increased threefold as measured by Snellen's types. The sense of light, measured by Treitel's tests, was found to be increased eighteenfold. After the eyes had been rested and light was gradually admitted, the colors were recognized in the following order: red, yellow, green, and lastly blue. When color fatigue for any particular color was produced with a glass of that color, it took a position last in the series. The visual field, both for light and colors, was found to be enlarged, but the

period of rest required to be longer and the darkness greater. The author concludes, from his experiments, that night blindness is a disturbance in the adaptability of the eye.

#### PHYSIOLOGICAL EXPERIMENTS ON THE EFFECT OF ALCOHOL.

It has been well established in late years that under certain circumstances the continued use of alcohol produces a form of inflammation of the nerves known as multiple neuritis, or clinically, as alcoholic paralysis. These cases are rare and often occur in those whose indulgence in alcohol has not been excessive, so that it has seemed as if some element besides alcohol alone was necessary to cause the nervous disorder. Experiments with alcohol upon the lower animals have not heretofore shown that its continued use produces any such condition as multiple neuritis in man.

In a recent essay, however, by Dr. P. F. Spaink, of Baarn, Holland, to which was awarded the Mason Prize, some facts are given which seem to show that alcohol does have a directly degenerating influence upon the peripheral nerves. Only an abstract of Dr. Spaink's work has as yet appeared (*Journal of Inebriety*), and many details are lacking. But we learn that Dr. Spaink fed several series of rabbits with pure alcohol, giving them from 2.3 to 8 cubic centimetres daily (3 ss., 3 ss.). The animals were finally killed and the peripheral nerves examined microscopically, control animals being used. In the great majority of cases degenerative changes were noted. They consisted essentially in a splitting or fissuring of the nerve, with the appearance of elongated, usually large, collections of myeline, thickened or thinned parts of nerve fibres, myeline drops, or simply neurilemma sheaths. Very rarely could any increase of nuclei be observed.

Besides this a large number of specimens showed, in addition to the above-described degeneration, a further peculiarity. This was a twisting or looping, after a corkscrew fashion, of the axis cylinders. These corkscrews recurred at varying distances on the same or neighboring fibres. At these twisted spots the axis cylinders appeared thicker, broader, and more diffuse than when their course was direct. Sometimes in badly-stained preparations these corkscrews were all that could be seen of the axis cylinder.

Since a splitting of the nerve fibres and

corkscrewing of axis cylinders are changes unknown to human nerves in alcoholic neuritis, the correctness of Dr. Spaink's findings is likely to be questioned.

A corkscrew appearance of the nerves in alcoholism is, however, very suggestive, since that interesting and useful spiral instrument plays so large a part etiologically in the disease. Is it possible that Dr. Spaink is a grim joker who has been trifling with the pundits of the American Association for the Study and Cure of Inebriety? One must not forget Dr. Dujardin-Beaumetz and the pigs to which he gave alcohol for two and a-half years without causing serious structural changes anywhere. There were no corkscrews in the pigs.—*Med. Rec.*

#### MEDICAL CHEMISTRY.

##### PURE PHOSPHORIC ACID.

M. Nicholas, in *Comtes Rendus*, describes a method of preparation of pure phosphoric acid, in which a known quantity of pure calcium phosphate is gradually added to a slight excess of pure dilute hydrofluoric acid contained in a leaden or platinum vessel, the mixture being well stirred after each addition. An energetic action takes place, and considerable heat is evolved. When all the calcium phosphate has been added, the high temperature of the mixture must be maintained for some time in order to complete the reaction. After the removal by filtration of the calcium fluoride which is formed, the solution of phosphoric acid is evaporated. At the point when the solution commences to become viscid the excess of hydrofluoric acid used is volatilized. The evaporation is continued until a thick syrup, containing 60 to 70 per cent. of phosphoric anhydride, is obtained. Meta and pyro-phosphoric acids may be prepared by further continuing the evaporation and heating. The various calcium salts of phosphoric acid, described by Erlenmeyer, may be readily prepared by adding hydrofluoric acid to a large excess of calcium phosphate, and, after mixing well, dissolving out with warm water the acid salts produced. Impure phosphate, such as bone ash, may be used for the preparation of phosphoric acid, provided that the resultant acid, after being evaporated to carbonize the organic matters present, is diluted with water, filtered, and again evaporated.

##### HYPNAL.

Hypnal, or monochloral-antipyrine, is

prepared, according to Dermandre, as follows:

To a solution of 47 Gm. of chloral in 50 C.c. of distilled water add a solution of 58 Gm. of antipyrine in 50 C.c. of water, and transfer the mixture into a funnel provided with a stopcock (separating funnel). When the mixture has separated into two layers, an upper, aqueous one and a lower, oily one; draw off the two layers separately. After about twenty-four hours the oily layer, will have been converted, almost entirely, into a mass of transparent, rhombic prisms, and a few small crystals will be found in the aqueous portion. The mother liquids having been poured off in both cases, the crystals are collected together and dried, first between blotting paper and afterwards over sulphuric acid.—*Petit Mon. de la Pharm.*

##### NAPHTHALIN CAMPHOR.

If, says the *Journal de Pharmacie*, naphthalin and a camphor of the laurinaceæ be brought together at a temperature of 35° C., a liquid compound will be formed. This body seems to be a combination of 10 molecules of camphor with 7 molecules of naphthalin. It can be obtained either by melting together in a water-bath 10 ( $C_{10}H_{16}O$ ) with 7 ( $C_{10}H_{8}$ ), or by melting together an indefinite quantity of the substances, letting the resultant liquid cool to about 30° C., and pouring off the portion that remains liquid at this temperature. This new compound melts at 32.6° C., and remains fluid down to 23°. It sublimes with partial decomposition, and boils at about 207° C. It distills over at this temperature, but decomposes in distillation, the distillate containing less naphthalin than the body submitted to distillation. Exposed to the air the camphor volatilizes little by little, leaving the naphthalin as a residue. It is soluble in those liquids which dissolve the two components, and itself is a good solvent for iodine and gun cotton.

##### CITRIC ACID AS A NORMAL CONSTITUENT OF MILK.

Th. Henkel has found that citric acid is a normal constituent of cow's milk. Sterilized condensed milk regularly deposits a sediment consisting almost entirely of calcium citrate. In a factory of milk products to which Henkel had access, fresh cow's milk is first "purified" by centrifugal machines, then evaporated to one-third in vacuo, and the condensed product heated in hermetically

sealed tin boxes so as to sterilize it. Upon standing during several days, there are found in the cans concretions or voluminous precipitates which, when the milk is diluted, fall to the bottom. They consist chiefly of calcium citrate mixed with a little casein.—*Zeitsch. f. angew. Chem.*, 1891, 503.

Concerning the occurrence of citric acid in milk, A. Scheible has contributed a detailed account in *Landwirthsch. Vers.*, 39, 153 (abstracted in *Zeitsch. f. angew. Chem.*, 1891, 503.) This investigator found that cow's milk contains between 1.7 and 2 Gm. in a liter, goat's milk 1 to 1.5 Gm., and human milk about 0.6 Gm. The occurrence of citric acid in milk has heretofore been overlooked. Its isolation is quite a task, the process given by Scheible being quite tedious and circumstantial. It depends in the main upon the fact that a mixture of alcohol and ether in definite proportions will dissolve the citric acid, while it will leave undissolved the other constituents of the serum of milk.

#### HASTENING THE REACTION BETWEEN HYDROGEN PEROXIDE AND PERMANGANATE.

When a solution of potassium permanganate acidulated with sulphuric acid is made to act upon hydrogen peroxide (dioxide), the reaction is sometimes quite sluggish, though when more permanganate is afterwards added the latter is at once rendered colorless. If, however, the hydrogen peroxide was previously mixed with a little manganous sulphate, the reaction with permanganate will take place fully and at once, at the first contact. It seems that the presence of manganous sulphate—itself one of the first products of the reaction between hydrogen dioxide and permanganate—is necessary for the continuance (or rather commencement) of the reaction. R. Engel, who makes this communication in the *Bulletin de la Soc. chimique*, vol. vi., 17 (*Chem. Centralbl.*, 1891, ii., 338), assumes that permanganate of potassium, when first encountering the manganous sulphate, oxidizes this to manganic sulphate. The latter salt is then decomposed again to manganous sulphate by the hydrogen dioxide.

If the hydrogen dioxide is very pure, and if the sulphuric acid contains neither sulphurous acid nor any nitroso, the reaction with permanganate and the dioxide is very slow. Yet, as these conditions of extreme purity are seldom present together, the tardiness of the reaction under those circumstances has

not been noticed or understood up to the present time.

#### NEWS AND MISCELLANY.

##### THE SOCIETY FOR THE ABOLITION OF THE TITLE OF DOCTOR.

The Society receives help in the following annotation from the *Medical Press and Circular*: "The titular appellation which medical practitioners rejoice in is a relic of antiquity akin to that of the legal wig, and it is curious in that it has survived the leveling tendencies of the present generation. A correspondent raises the question as to whether the practice is an unmixed advantage. It serves to distinguish the doctor from his fellow-men, and although from an advertisement point of view this may not be altogether a drawback, it certainly entails inconveniences of its own. It never occurs to an outsider to start a conversation with a doctor on any but a medical topic, and it is quite open to discussion, a contemporary suggests, whether, if medical men did not differentiate themselves so much, and were content to be like other educated members of the community in title, manners, and personal appearance, it would not be better for themselves both in public and private life." —*Med. Record.*

##### MALFORMATION OF THE NOSE IN IDIOTS.

M. Revillet (of Cannes): In idiots deviations of the nose to the left has been observed in more than half the cases. The nasal passages are almost always the seat of chronic catarrh. Hypertrophy of the mucous membrane of the septum and that of the turbinate bones is of great frequency, and more remarkable since these affections are relatively rare in men of sound mind. Deviation of the septum from the fact of the narrowing which it produces in one of the nasal fossae is a very efficient pathogenic cause of hypertrophy of the septum and of the turbinate bones.—*La France Medicale.*

##### A PIN SWALLOWED PASSES PER URETHRAM.

The following case is reported by Tuttle (*N. Y. Med. Jour.*): K. D., aged five years, while playing with a bent pin in her mouth, suddenly caught her breath and drew the pin into her throat. It lodged in the fauces, but, upon her mother attempting to remove

it, was dislodged and swallowed. This occurred on December 12. Fearing too great peristaltic action with a sharp-pointed foreign body in the alimentary canal, I gave no cathartics, but had the patient fed on food containing a large proportion of excrementitious matter and the stools constantly examined to find the pin if it should pass. Ten days elapsed and, nothing having been seen of it, I had about concluded it had imbedded itself in some of the intestinal folds or been overlooked in the dejections, when the father called to tell me that the child had passed the pin upon urinating that morning. She complained of sharp pain upon making her water, and, looking in the vessel, found the pin somewhat corroded but otherwise just as when she swallowed it.

The passage of the pin through the intestinal wall is not so remarkable as its passage from the bladder after it had once fairly entered that organ. Of course, it is possible the pin may have passed from the rectum through the vagina and not entered the bladder at all, but the child's symptoms indicated irritation of the latter organ.

#### MEDICAL ALLIANCE TRANSACTIONS.

The transactions of the first annual meeting of the U. S. Medical Practitioners' Protective Alliance have been published and are now ready for distribution to the profession. The volume contains the addresses in full, delivered at the Baltimore meeting, together with the constitution and by-laws and other information. A copy will be mailed to any physician interested who will send stamp to the Secretary, Dr. J. F. Davidson, Glendola, New Jersey.

#### FIRST SEMI-ANNUAL REPORT OF THE NEW YORK PASTEUR INSTITUTE.

Dr. Paul Gibier, Director of the New York Pasteur Institute, reports the following results of the preventive inoculations against hydrophobia performed at this Institute during the first six months of the second year of its existence (February 18th, 1891, to August 18th, 1891). During this time 415 persons having been bitten by dogs, cats and other animals applied for treatment. These patients may be divided in two categories:

1st. In the case of 345 of these persons it was demonstrated that the animals attacking them were not mad. Consequently the patients were sent back after having had

their wounds attended to during the proper length of time.

2. In 70 cases the anti-hydrophobic treatment was applied, hydrophobia of the animals inflicting bites having been evidenced clinically, or by inoculation at the laboratory, and in many cases by the death of some other persons or animals bitten by the same dogs.

Indigents have been treated free of charge. The persons treated were:

17 from New York.  
16 from New Jersey.  
11 from Massachusetts.  
5 from South Carolina.  
5 from Texas.  
3 from Connecticut.  
2 from Maryland.  
2 from Missouri.  
1 from Ohio.  
1 from North Carolina.  
1 from Michigan.  
1 from Pennsylvania.  
1 from Rhode Island.  
1 from Arkansas.  
1 from Virginia.  
1 from Mexico.  
1 from West Indies. (Curaçoa).

#### DEATHS BY HYDROPHOBIA AFTER TREATMENT:

Miram Adams, 5 years old, of Framingham, Mass., badly bitten July 14th last, in 19 places by a dog, recognized to be mad. Treated from July 15th to August 1st. Symptoms of hydrophobia appeared six days later, (August 6th). Died August 9th.

Three other persons (two, sisters of the patient) and a man, bitten by the same dog, who received the same course of treatment, are now enjoying good health.

Thus far, is the only death by hydrophobia out of 255 cases treated at this Institute to date.

#### BEER-DRINKING AND HEART DISEASE.

It is said (Blätter f. Klin. Hydrotherapie, 1891, No. 4) that disease of the heart is very prevalent in Munich, where the consumption of beer amounts, on the average, to 565 litres per head annually; and in the same place the duration of life among the brewing trade is shorter than that of the general population. Whereas the average age attained among the latter is 53.5 years, that of ale-house keepers is 51.33 years, and of brewers 42.33 years. The same note adds that for the whole of Germany the annual consumption of beer per head amounts to 88 litres, but for Bavaria it is 209 litres.